# The Journal of the American Medical Association

Published under the Auspices of the Board of Trustees

VOL. XLIII. CHICAGO, ILLINOIS, AUGUST 20, 1904. No. 8.


## Original Articles.

### STATIC FOOT ERROR.

ANALYSIS OF ONE THOUSAND CASES.


WILLIAM E. BLODGETT, M.D.

BOSTON.


The object of this investigation was (1) to contribute to the sum of available statistics of static foot error; (2) to draw from the cases any warrantable conclusions.

STATISTICAL SUMMARIES.

The cases are from the Orthopedic Out-patient Department of the Carney Hospital, Boston, through the courtesy of Dr. Painter, and include only those cases of foot trouble in which the chief factor appears to be static, i. e., an error of weight bearing. Thus acute and chronic arthritis of the foot, paralytic, circulatory, and recent traumatic and inflammatory conditions are excluded; but those cases are included in which any of the preceding causes determined a faulty static condition which itself had become the chief factor in the foot trouble. The cases are the thousand next preceding Sept. 1, 1903, and cover a period of two years and four months. The data are from the hospital records and from the replies of 44 and the special visits of 125 patients in response to 600 postals.

TABLE 1.—SEX. RELATION TO TOTAL ORTHOPEDIC CASES.

| | Static Foot Cases. | All Orthopedic Cases in Same Period. | Per cent. Static Foot Cases to all Cases. |
|---|---|---|---|
| Male | 426 | 1,162 | 36.7 per cent. |
| Female | 574 | 1,290 | 44.5 per cent. |
| Totals | 1,000 | 2,452 | 40.8 per cent. |

The female cases were in moderate excess, and the percentage of female cases to all the orthopedic female cases was slightly larger than the corresponding male percentage. The static foot cases were about two-fifths of the total orthopedic cases in the same period.

TABLE 2.—AGE.[1]

| | | Per cent. |
|---|---|---|
| 12 to 19 years | 166 | 17.0 |
| 20 to 29 years | 280 | 26.6 |
| 30 to 39 years | 234 | 24.1 |
| 40 to 49 years | 181 | 18.6 |
| 50 to 59 years | 96 | 9.9 |
| 60 to 69 years | 35 | 3.6 |
| 70 to 79 years | 2 | .2 |
| Total | 974 | 100.0 |
| Unrecorded | 26 | |

Two-thirds of the cases were under 40 years of age.

The seasons of the year in order of the frequency of application during them of static foot cases, the season of greatest frequency being first, are summer, spring, winter, fall. There were entered in the summer on the average nearly twice as many cases as in the fall. The total attendance of all new orthopedic cases, however, shows much the same seasonal fluctuation.

1. Cases under 12 years were not treated.

TABLE 3.—TIME OF YEAR.

| | Static Foot Cases. | Total Orthopedic Cases. | Percentage Static Foot Cases to Total Orthopedic. |
|---|---|---|---|
| May, 1901 | 31 | 96 | 32.6 |
| June 1 to Sept. 1, 1901 | 109 | 216 | 50.5 |
| Sept. 1 to Dec. 1, 1901 | 52 | 144 | 36.1 |
| Dec., 1901, to March 1, 1902 | 73 | 174 | 42.0 |
| March 1 to June 1, 1902 | 128 | 305 | 42.0 |
| June 1 to Sept. 1, 1902 | 129 | 332 | 38.9 |
| Sept. 1 to Dec. 1, 1902 | 78 | 215 | 36.3 |
| Dec. 1, 1902, to March 1, 1903 | 93 | 240 | 38.8 |
| March 1 to June 1, 1903 | 144 | 387 | 37.2 |
| June 1 to Sept. 1, 1903 | 163 | 438 | 37.2 |
| Total | 1,000 | 2,546[2] | |

TABLE 4.—OCCUPATION.

| | | Per cent. |
|---|---|---|
| Housework (wife) | 176 | 23.6 |
| Housework or cooking (hired) | 89 | 12.0 |
| Clerk | 36 | 4.8 |
| Mill or factory | 34 | 4.6 |
| Laborer | 32 | 4.3 |
| Railroad | 28 | 3.8 |
| Waiter | 24 | 3.2 |
| Unclassified, requiring standing, as washerwoman, barber, bartender, etc. | 147 | 19.7 |
| Unclassified, not requiring standing | 179 | 24.0 |
| | 745 | 100.0 |
| Occupation unrecorded | 255 | |

The relation of occupation to static foot error is illustrated by the following: Of 14 surface car motormen with static foot error, 7 had symptoms in only the left foot (the foot supporting the body-weight, the right being used to operate bell and brake); 2 had symptoms in both feet, but worse in the left; 4 had symptoms in both feet equally; and only 1 had symptoms in the right foot only, and in this case the left was objectively the worse. The weight-bearing foot, therefore, was affected alone in half the cases, whereas the free foot was affected alone in only one case, and in this case the weight-bearing foot appeared objectively the worse.

ETIOLOGY.

TABLE 5.—ETIOLOGY.

| | |
|---|---|
| Trauma | 35 |
| "Acute rheumatism" or other arthritis including gonorrhea | 35 |
| Excessive weight (over 180 pounds) or sudden increment of weight, as at the menopause | 22 |
| Illness just preceding onset of symptoms | 22 |
| Postpartum | 12 |
| Congenital, i. e., said to have existed since birth and presenting, though at an early age, a foot completely flat with scaphoid dislocation | 6 |

The figures in Table 5 understate the absolute frequency of operation of the respective causes in the thousand cases, because often no record was made; but they may be regarded as representing the relative frequency of the causes tabulated. Cases of foot error, in which the present general condition or non-static local condition appears to be the more important factor, are, as stated above, not included in the thousand cases, thus explaining the absence of present frank polyarthritis in a review of the causes of these cases. Certain condi-

2. Including 94 orthopedic cases with diagnosis unknown. In figuring the percentage to total orthopedic cases, in a previous table, these cases were excluded, as some of them were probably static foot cases.

tions, local and general, though perhaps not direct causes, have been noted as predisposing or contributing to the weight-bearing error and to the liability to symptoms therefrom. Local: (1) Long, slender foot; (2) hallux valgus. General: (1) Mild, fleeting polyarthritic symptoms, probably toxemic; (2) depression of physical vigor, without local symptoms, except in feet, as shown by soft muscles, pale skin and mucous membranes, excessive complaining without effort at self-help, and general indolence of body and mind.

The commonest direct cause was trauma. (It may be questioned whether the trauma, for instance, a sprain, was not sometimes, rather than the cause, more the result of a static error already existent.) In many cases no satisfactory cause was found.

TABLE 6.—RIGHT, LEFT, OR BOTH.

| | | Per cent. |
|---|---|---|
| Right only | 140 | 14.9 |
| Left only | 152 | 16.2 |
| One side only (not specified) | 28 | 3.0 |
| Both | 618 | 65.9 |
| | 938 | 100.0 |
| Unrecorded | 62 | |

In about two-thirds of the cases, therefore, both feet gave symptoms, though often not beginning at the same time. In the remaining cases, the symptoms were about equally divided between the right and the left. It was not rare to find the symptomless foot used in objectively the worse position.

TABLE 7.—DURATION AT ENTRANCE.

| | | Per cent. |
|---|---|---|
| One month or less | 105 | 12.7 |
| One to 6 months | 279 | 33.8 |
| Six months to 2 years | 251 | 30.3 |
| More than 2 years | 186 | 22.7 |
| | 822 | 100.0 |
| Unrecorded | 178 | |

In slightly less than half the cases the duration of symptoms at entrance was six months or less. The duration of symptoms, however, was often entirely disproportionate to what must have been the duration of the deformity, only a week or two of pain being not uncommonly attributed to at least a year's or two flat-foot. Moreover, as shown in several investigated cases, a patient, especially of the working class, learns to spare his feet unconsciously, and, until he suffers a decided increase of pain, due perhaps to some unusual exertion, he regards what discomfort he has as natural fatigue. It is believed, therefore, that the duration as tabulated is too short.

TABLE 8.—SYMPTOMS.

| | | Per cent. |
|---|---|---|
| Pain in feet only | 643 | 68.1 |
| Pain in feet and above | 244 | 25.9 |
| Pain wholly above feet | 21 | 2.2 |
| Disability or deformity (practically painless) | 36 | 3.8 |
| | 944 | 100.0 |
| Unrecorded | 56 | |

In slightly more than 95 per cent. of the cases, therefore, pain was the leading symptom, and in slightly more than two-thirds of these painful cases the pain was in the feet and ankles only. Special interrogation of 125 cases, however, would seem to show that this proportion of cases with pain wholly confined to the feet or ankles is too large. Of the 36 painless cases 19, or more than half, were under twenty years, although of the whole thousand only one-sixth were under this age.

TABLE 9.—LOCALIZATION OF PAIN IN THE FOOT.

| | |
|---|---|
| Astragalo-scaphoid articulation (and immediate vicinity) | 164 |
| Heads of metatarsals | 116 |
| Center of heel (plantar surface) | 106 |
| Sole generally | 30 |
| Between external malleolus and cuboid | 24 |
| Plantar surface of head of first metatarsal | 8 |

The pain in the foot was often variable and diffuse, so that the patient could not refer it to any exact site. The records, moreover, usually mention the "foot" or the "ankle" as the location of the pain. Table 9 gives the exact data as far as obtained. When pain was referred definitely by the same patient to two distinct spots the case was entered in the table twice.

Pain in the foot, therefore, usually diffuse or variable, when localized, was most frequently referred to the astragalo-scaphoid joint.

TABLE 10.—LOCALIZATION OF PAIN ABOVE THE ANKLE ASSOCIATED WITH PAIN IN THE FOOT.

| | |
|---|---|
| Calf (including front of tibia) | 147 |
| Knee | 73 |
| Back | 52 |
| Hip | 14 |

When pain was definitely referred by the same patient to two parts, as the knee and the back, it is entered twice, thus making the total larger than the whole number that had pain above the ankle associated with pain in the foot.

The calf, therefore, was much the commonest place for pain above the ankle associated with pain in the foot.

### LOCALIZATION OF PAIN WHOLLY ABOVE THE ANKLE.

Of the 21 cases of static foot trouble without subjective foot symptoms 13, or more than half, had pain only in the knee, usually over the internal condyle, and 4 others had pain in the knee associated with pain elsewhere above the ankle. In these cases the examination of the knee was negative, except perhaps for slight hyperemia of the joint membranes. Exact figures can not be given, but in several of the cases the causal relation of the static error in the foot to the knee trouble was attested by prompt improvement of the knee following correction of the foot. The relation of static foot error to knee symptoms as seen in the clinic is commoner than the thousand cases would thus indicate, for cases of well-developed simple villous arthritis of the knee are found frequently associated with pronated or flat feet; but, although the static foot error may well have been the fundamental cause, and although part of the treatment is directed to the feet, these cases could not justly be grouped with the static foot cases, as the static foot element in them, whatever its causal importance, was no longer the chief factor.

### TYPES OF STATIC FOOT ERROR.

To give the exact figures compiled regarding the types of deformity affecting chiefly the longitudinal arch would imply accuracy that is unwarrantable, for the nomenclature of the records has not been always uniform, and the types themselves are not distinct. In general, however, much the commonest type, occurring oftenest in massive feet of full-grown adults, was a moderate rotation of the sub-astragaloid tarsus about an antero-posterior axis into a valgus position, together with considerable depression of the longitudinal arch during weight-bearing, but without much abduction of the forefoot, *i. e.*, not much rotation outward of the foot anterior to the astragalus about a supero-inferior axis (patient standing). Without weight-bearing, the longitudinal arch in this type is normal or only slightly flattened, and during weight-bearing the arch is never entirely lost. The foot is relaxed and spread out. The next commonest type, occurring oftenest in slender feet, was moderate valgus, decided abduction of the forefoot, and an arch unusually high even during weight-bearing. The deformity in both these types is pronation, but with difference in the relative amounts of the three clinical components of pronation—valgus, abduction, and de-

pression of the longitudinal arch. The common incidence of a general type of deformity with a general type of foot, as noted above, suggests a determining difference in the internal conformity of the types of feet, especially of the calcaneo-astragaloid facets, as alluded to by Lovett and Cotton.[3] Other types observed were (1) the thoroughly flat foot, with prominence of the scaphoid; (2) flattening of the arch of relaxed feet in weight-bearing, without commensurate pronation, due to apparently direct depression; (3) pes cavus or the contracted foot, with short tendo Achillis, but no other evidence of paralysis.

In nearly all the cases the anterior arch was involved to some extent; in 156 cases, notably spread and flattened; and in 116 cases, as tabulated, painful. In 68 cases, the concurrence of spreading and flattening of the anterior arch, distinctive pain at the heads of the metatarsals (almost always centering at the head of the fourth metatarsal), and usually callous under the anterior arch, made the distinct diagnosis of broken anterior arch. Of these cases, 41, or about three-fifths (only 2.9 per cent. more than the percentage of total female static foot cases), were women; 10 (2 men and 8 women) had had the definitely characteristic, sudden attacks of excruciating matatarsalgia, relieved by removal of shoe.

The degree of deformity, whatever its type, was no indication of the severity of symptoms. A few of the cases complaining of pain had feet apparently normal, but were relieved by treatment of the inferred static error.

TABLE 11.—CONGESTION. VARICOSITY. HALLUX VALGUS.

| | |
|---|---|
| Congested | 65 |
| Varicose veins | 45 |
| Hallux valgus, marked | 77 |
| (Minor grades common.) | |

Of the 77 cases of marked hallux valgus, 14, or 18.2 per cent., suffered from definitely broken anterior arches, while in the 1,000 cases the percentage of broken anterior arches was only 6.8 per cent.

TABLE 12.—SWELLING.

| | | Per cent. |
|---|---|---|
| About astragalo-scaphoid articulation | 33 | 58.9 |
| About external malleolus | 10 | 17.9 |
| About both malleoli | 6 | 10.7 |
| Over dorsum | 4 | 7.1 |
| Prolonging heel cushion forward | 3 | 5.4 |

TABLE 13.—TENDERNESS.

| | | Per cent. |
|---|---|---|
| Center of heel | 16 | 64.0 |
| Over astragalo-scaphoid joint | 6 | 24.0 |
| Sole | 2 | 8.0 |
| Cushion of first metatarpo-phalangeal joint | 1 | 4.0 |

Tables 12 and 13 are incomplete, and represent relative, rather than absolute, frequency. Swelling when diffuse, as commonly, is not included.

In broken anterior arch there was usually tenderness about the head of the fourth metatarsal.

The commonest place for swelling was over the astragalo-scaphoid articulation, and the commonest tender point was the center of the heel.

TABLE 14.—MOBILITY. (IN PASSIVE MOTION.)

| | |
|---|---|
| Inversion restricted (with dorsal flexion, as a rule, also restricted) | 130 |
| Dorsal flexion restricted (with inversion practically normal) | 45 |
| Generally restricted | 69 |
| Increased | 20 |
| Normal | 257 |
| Unrecorded (presumably no restriction) | 479 |
| | 1,000 |

In 88 cases, mobility, almost always in inversion, was sufficiently restricted by spasm, adhesions, or adaptive changes in tendons or bones, to require special treatment; of these cases, 58, or 65.9 per cent., were men, contrasted to the 42.6 per cent. of male cases in the whole series.

3. Boston Medical and Surgical Journal, Aug. 4, 1898.

In about one-quarter of the cases there was notable restriction of passive motion; in one-twelfth of the cases this restriction required special treatment; restriction of motion requiring special treatment was commoner among men than among women.

TREATMENT.

To make the results significant, it is necessary to give an outline of the treatment used. In a great majority of the cases (86.7 per cent.) a steel sole plate was advised, usually at initiation of treatment, sometimes after failure of other means, or in course of treatment. These plates were made as follows: a plaster impression was taken in each case, the patient sitting upright and allowing the partially corrected foot (or feet) to rest on the bottom of the pan of plaster; the cast, made by filling this impression, would then be gouged out, shaved, and marked for a plate of the shape and size needed by the particular foot. The plates were usually of No. 18 gauge steel, spring-tempered, covered with leather on both sides. The prevailing type of plate, chiefly for what has been described as the commonest type of deformity, was the square plate, supporting nearly the whole width of the sole from just anterior to the weight-bearing surface of the heel to the sesamoid bones of the great toe. A posterior outside flange, to keep the foot from slipping off and a small posterior inside flange were used, but neither side as a whole was rolled up, and the scaphoid and the base of the fifth metatarsal were not inclosed. For broken anterior arches, the plate was extended and raised under the heads of the middle metatarsals. Much abduction would be opposed by an anterior outside flange. High heel flanges and various modifications were used in needful cases. Flannel bandaging and supporting adhesive strapping were employed where indicated.

Local and general tonic treatment, foot exercises, right shoeing, and correct muscular standing and walking were often recommended. Rigid valgus was treated by adhesive strapping in as much correction as possible, followed by plate when the foot became sufficiently flexible; intractable cases were forcibly corrected by manipulation under ether, and retained overcorrected by plaster cast, followed by plate and usually Thomas sole. Thomas heels, or heel and soles, were occasionally used in promising cases in substitution for plates. Temporary felt pads and leather felt pads were among the measures employed. The treatment thus outlined represents only the routine, and does not give account of the adjustment of the routine to the individual.

ALTERATION OF PLATES.

Of the 1,000 cases, 513 did not return for continued treatment; of these, at the prevailing proportion of 86 per cent., 451 must have been cases in which plates were advised; this leaves of the total 847 plate cases, 396 to form the basis of the following table. If these 396 had all diligently continued to follow treatment, the number of alterations needed and made would doubtless have been increased. It is probable, as will be shown later, that the need for plate changes among the 451 who did not return was no less than among the 396 included in the table.

TABLE 15.—ALTERATION OF PLATES.

| Time After Application of Plate. | Under 1 mo. | 1 to 2 mos. | 2 to 6 mos. | 6 mos. 1 year. | 1 to 2 years. | Totals. |
|---|---|---|---|---|---|---|
| Raised | 109 | 29 | 28 | 13 | 3 | 178 |
| Readjusted—usually broken | 7 | 6 | 31 | 31 | 10 | 85 |
| Adjusted—because painful | 24 | 9 | 12 | 1 | 0 | 56 |
| Lowered | 3 | 4 | 3 | 2 | 1 | 13 |

Cases in which plates were raised more than once, each case entered only once in table: twice, 28; three

times, 6; more than three times, 5. Alterations with time not specified, not entered in table, 7.

Thus, in two-fifths of the plate cases returning for after-treatment, the plates were raised, usually within a month. The need for this raising, due to the patient's becoming accustomed to the plate, to plantar moulding and atrophy, and to elevation of the arch, was conspicuously shown by the relief it gave from returning symptoms. A higher plate at outset would, as a rule, apparently not have been tolerated; indeed, the same plates, which, in a few weeks, unquestionably required raising, the patient at the beginning often could not wear steadily, but on account of the initial height of the plates had to become used to them gradually.

About one-fifth of the plates broke during the first year of use, usually due to continuous moisture and resultant rust. This breakage has recently been prevented apparently satisfactorily by galvanizing the plates with omission of the lower leather.

### RESULTS OF TREATMENT.

Five hundred and thirteen cases of all kinds of static foot error did not return for after-treatment, and there are consequently no hospital records of the results of treatment. Of these cases, however, 85 have recently been examined or heard from, after a period since initial treatment (usually plate), average 6 to 7 months, and the results subjoined will perhaps serve as a basis for estimating the results in all the deserters.

"Entire relief" in the following tables means without inconvenience of any kind from feet; "relief," occasional pain in feet, usually after much use; "slight relief," pain in feet less, but present more or less all the time; "no relief," pain as much as ever. Intermediate results are expressed by the one of the above terms nearest in meaning.

TABLE 16.—RESULTS OF INITIAL TREATMENT.

| | | Per cent. |
|---|---|---|
| Entire relief | 21 | 27.6 |
| Relief | 33 | 43.4 |
| Slight relief | 4 | 5.3 |
| No relief | 18 | 23.7 |
| | 76 | 100.0 |
| Treatment rejected | 9 | |

About one-quarter, therefore (if the same proportions hold for all), of the cases that did not return after the initial treatment (usually plate), were entirely relieved, and slightly less than the same number were entirely unrelieved.

TABLE 17.—RESULTS OF PLATE TREATMENT OF STATIC ERROR AFFECTING PRINCIPALLY THE LONGITUDINAL ARCH.

| | Under 1 mo. | 1 to 6 mos. | 6 mos. 1 year. | Over 1 year. | Total. | Per Cent. |
|---|---|---|---|---|---|---|
| Entire relief | 5 | 28 | 13 | 21 | 67 | 32.7 |
| Relief | 8 | 56 | 21 | 7 | 92 | 44.9 |
| Slight relief | 3 | 8 | 3 | 2 | 16 | 7.8 |
| No relief | 3 | 17 | 2 | 6 | 28 | 13.6 |
| Worse | 0 | 0 | 1 | 1 | 2 | 1.0 |
| | 19 | 109 | 40 | 37 | 205 | 100.0 |

Of the cases involving principally the longitudinal arch, one-third were entirely relieved by plate treatment (of course with the accessory treatment as described in the outline of treatment), with after-treatment, and only one-eighth unrelieved, in contrast to only the one-quarter entirely relieved, and the one-quarter unrelieved of the patients who received, as a rule, the same initial treatment, but deserted without after-treatment. The importance of after-treatment is further manifested by the improvement in results with the increasing duration of treatment; thus, as shown by the table, about three-fifths of the cases under treatment more than one year were entirely unrelieved, while of the cases under treatment less than six months those entirely relieved were only one-quarter.

TABLE 18.—RESULTS OF PLATE TREATMENT OF STATIC ERROR INVOLVING PRINCIPALLY THE ANTERIOR ARCH.

| | Under 1 mo. | 1 to 6 mos. | 6 mos. 1 year. | Over 1 year. | Totals. | Per Cent. |
|---|---|---|---|---|---|---|
| Entire relief | 0 | 2 | 7 | 0 | 9 | 32.1 |
| Relief | 2 | 8 | 3 | 2 | 15 | 53.6 |
| Slight relief | 0 | 0 | 0 | 0 | 0 | .... |
| No relief | 0 | 0 | 1 | 3 | 4 | 14.3 |

Of the 10 cases with sudden, disabling metatarsalgia, 5 did not return after initial treatment, and have not been found. One was entirely relieved by plate for 8 months; then attacks returned; plate needed raising. Two were relieved at end of a month by strapping of anterior arch and plate. Of the two remaining, one continued to have attacks of undiminished severity, but less frequently, and the other was entirely unrelieved, although both had been faithfully under treatment, for ten months and one and a half years respectively.

The results of treatment of cases involving principally the anterior arch were strikingly similar to those in the longitudinal arch cases: one-third entirely relieved, one-twelfth unrelieved, and the rest all relieved considerably. In the cases of sudden, severe metatarsalgia, the results were not so good.

### THOMAS SOLES AND PLATE SUBSTITUTES.

The results of treatment by Thomas soles without plates—entire relief, 2; relief, 4; slight relief, 1; no relief, 3—tend to show that this treatment, even in picked cases, was less effective than plate treatment, to which several of these cases had to come. Flannel bandaging and alternate hot and cold showering, or felt pad and strapping were also used, in promising cases of mild static error of the longitudinal arch, to bridge the patient over to physiological recovery, without committing him to the plate-habit. In 16 such cases, only 4 were unrelieved, but later 1 came to Thomas soles and 5 came to plates.

TABLE 19.—ADHESIVE STRAPPING FOR RESTRICTED INVERSION.

| | Under 1 mo. | 1 to 6 mos. | 6 mos. 1 year. | Over 1 year. | Totals. |
|---|---|---|---|---|---|
| Entire relief or relief | 3 | 5 | 1 | 0 | 9 |
| Slight or no relief | 0 | 3 | 0 | 0 | 3 |
| Flexible | 1 | 2 | 1 | 0 | 7 |
| Still rigid | 0 | 3 | 1 | 2 | 6 |

In three-quarters of the cases with restriction of inversion sufficient to require corrective adhesive strapping, the pain was entirely or much relieved, although the flexibility was much improved in only a half of a series of similar cases. The relief of symptoms without restoration of mobility, even with the plate, usually did not continue long after the last strapping.

TABLE 20.—FORCIBLE CORRECTION UNDER ETHER.

| | 1 to 6 mos. | 6 mos. 1 year. | Over 1 year. |
|---|---|---|---|
| Flexibility nearly normal | 3 | 1 | 0 |
| No record of change of mobility, but symptoms relieved | 2 | 1 | 0 |
| Rigid again | 6 | 5 | 1 |

Thus, in two-thirds of the cases of forcible correction under ether, the valgus and rigidity, in spite of plaster cast, adhesive strapping and plates, returned, although in several cases forcible correction was repeated, and in one case was performed five times with unpreventable return each time of rigid valgus due to peroneal spasm. In these not uncommon cases of spasm of the peroneals, resection of a short musculo-tendinous piece of the two muscles and their common sheath has recently in the clinic been giving apparently satisfactory and permanent results.

### REMOVAL OF PLATES. CHANGE OF HABITUAL FOOT POSTURE.

Among the 350 plate cases in which results are known, although a half and more had worn their plates over six months, only 15 removed their plates with relief (6) or entire relief (9). Of these 15, 5 had worn plates less than 6 months; 5, 6 months to a year; and 5, more than one year; the majority of these gave up plates without advice. Six cases, one after three years of plate wearing, are known to have made, without advice, determined attempts to give up their plates, but were forced back to them by returning pain. The unavoidable inconvenience of plates and the natural desire to be rid of them, as illustrated in these six cases, and the common return of symptoms after breakage of plates, make it improbable that any considerably larger number of the 350 plate cases than the fifteen could have discontinued their plates with comfort. The 95.7 per cent. of all the plate cases in which the results are known continued to wear their plates because they could not do without them. After more than six months on the average, they subjectively needed plates as much as ever.

To explain this continued subjective need objectively, the prevailing foot-posture in standing and walking was observed in 125 cases, nearly all of whom had steadily worn plates for averaging six to seven months, and compared with the recorded posture at entrance. These comparisons could not be made accurate, because, as before noted, there was no accurate method of measuring and recording the posture,[4] even if this posture had been uniform during the observation, and not shifting, requiring a composite judgment; but roughly speaking, it seemed unquestionably that in nearly all the cases, painful or painless, plate-wearing or cases in which plates had been successfully discarded, with the exception of the abducted-pronated feet of growing boys and girls, there had been produced by the plate-wearing no practical change in the prevailing posture of the feet when used without plates, although, as indicated by the common need for plate-raising, the sole was molded and hollowed, and the arches were apparently more easily elevated by artificial support. The muscular control, also, as a rule, did not appear improved.

### SOME REASONS AND REMEDIES FOR FAILURE TO RELIEVE.

Some of the reasons for failure entirely to relieve or to maintain entire relief that have been made obvious by a review of the series in light of the results may be summarized as follows:

1. Patient's failure to return for after-treatment (raising or adjustment of plate, etc.). The patient regards the plate as a shoe which is to be worn unchanged until worn out.

2. Patient's failure intelligently and resolutely to co-operate in achieving cure. The patient expects that the plate will cure his foot in the sure, quick, lazy way in which the charlatan's specific holds forth to cure consumption.

3. Remaining or returning interference with correct weight-bearing position and normal mobility of the foot (spasmodic or shortened tendons, intertarsal adhesions, bony obstruction).

4. Mistake for a simple static foot trouble of a foot trouble partly static but chiefly symptomatic of some other condition (arthritic or polyarthritic, circulatory, neurological, etc.).[5]

In a comparatively few of the cases, the reason or reasons for failure to relieve are obscure, and in spite of painstaking treatment diligently followed relief was not afforded. In one case, for instance, thorough local and general treatment, including general institutional hydrotherapy, was followed for six months before relief began to come.

These reasons for failure to relieve imply the corresponding remedies too plainly to bear mention. One remedy, however, it is believed, can not easily be overemphasized: the patient's intelligent, resolute co-operation. Such co-operation, though, especially in a hospital clinic, often hindered and sometimes prevented by the character of the patient, depends in all cases on effective instruction and encouragement, varying, of course, with the kind of patient and the kind of foot. The patient should be told and shown how to stand and walk to the best mechanical advantage, by the voluntary correction of pronation and the muscular use of foot and toes. Special exercise, correct shoes and foot wear, home manipulation for restriction of mobility, tonic bathing, local or general, and increase of physical vigor should, in needful cases, be explained and advised. These means of self-help, intelligently and resolutely used, with, or even without, a plate substitute temporarily, would, in a considerable number of cases, it is believed, be sufficient, thus avoiding the plate habit. The engaging, suggestive effect of a plate, however, more than of any plate substitute or of any other measures, is, in treatment of many cases, a factor of real importance. If a plate is used, it should be explained to the patient that the plate will probably need raising or alteration, and in most cases that it is to be regarded only as a temporary crutch, in addition to the rest of the treatment, which is to be discontinued, under advice, as soon as possible. For painlessness through plate wearing, although in some cases the best possibility, is never perfect cure.

4. An effort to measure pronation by the angle between the intermalleolar diameter and the long axis of the foot proved, as in the experience of Drs. Lovett and Cotton, unprofitable, because the relation of the amount of abduction, i. e., increase of the angle, to the amount of pronation is not constant.

5. No static foot trouble is without a cause, and strictly is always symptomatic; but by simple static foot trouble is meant foot trouble due more to the weight-bearing error than to the greater or less complex of causes from which the weight-bearing error springs. It is only the former cases of which, as before stated, the present series was intended to be composed.

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## PRACTICAL NOTES ON OINTMENTS, THEIR USE AND ABUSE.*

L. DUNCAN BULKLEY, A.M., M.D.
Physician to the New York Skin and Cancer Hospital; Consulting Physician to the New York Hospital.
NEW YORK.

From time immemorial ointments have been employed in treating diseases of the skin, and the numerous references to them in the Bible show how highly they were esteemed. One reference, namely, "Dead flies cause the ointment of the apothecary to send forth a stinking flavor," refers to an important point to be considered, that is, the freshness or rancidity of ointments.

While it might seem a simple and easy matter to prescribe an ointment for a diseased condition, any one who has dealt much with diseases of the skin not only often recognizes the difficulties connected therewith, but sees continually the uselessness or harm of many that have been previously prescribed for patients by others.

*Read at the Fifty fifth Annual Session of the American Medical Association, in the Section on Cutaneous Medicine and Surgery, and approved for publication by the Executive Committee: Drs. H. W. Stelwagon, J. A. Fordyce and H. G. Anthony.

A practical study of the subject, therefore, may aid some in avoiding certain of the errors which continually occur in this line of therapeusis. The subject is a larger one than can properly be treated of in a single paper, and many important matters must be very briefly considered.

### PATENT OINTMENTS.

In regard to the innumerable patent ointments which have appeared in succession for years as cures for many or "all diseases of the skin," and some of which of late years have been so ingeniously thrust on the profession, some may have value, if rightly used in suitable cases, but their very number and variety show their relative uselessness. They may serve to relieve the physician of the effort necessary to prescribe a suitably compounded ointment, but experience proves their value to be extremely limited; indeed, they are often found injurious. Their uncertain composition, which is found to vary considerably at different times, and the doubtful testimonies of their efficacy, generally from unknown and inexperienced persons, quite excludes them from our serious consideration.

The United States Dispensatory contains formulæ for over fifty ointments for various purposes, many of which are well known and are of value, as recommended, but some are too weak and many of them are far too strong for ordinary use, unless diluted. It is, therefore, hardly safe to always rely on the directions there given in regard to the use of ointments in diseases of the skin.

There are so many items to consider in connection with this subject that it will be well to take them up in regular order under the following heads: 1, bases for ointments; 2, ingredients; 3, methods of compounding; 4, strength; 5, mode of application and removal; 6, indications and contraindications for ointments. No attempt will be made to fully cover all these topics, but practical suggestions are offered as to matters which experience has shown to be of importance.

### BASES FOR OINTMENTS

The first requisite for a good ointment for the skin is that its base shall be non-irritating and of a proper consistency, and the tendency of many ointments to become rancid should never be forgotten by the physician. This will sometimes happen through the carelessness of the druggist, more often by that of patients in keeping them too long. Not infrequently an old ointment will prove irritating when one freshly and properly prepared, with the same ingredients, will prove serviceable.

Lard is a common base of very many of the ointments of the dispensatory, and to prevent its rancidity it is commonly treated with about 2 per cent. of benzoin, or originally the tincture of benzoin was added. This latter may prove irritating to the skin, and sometimes the lard is imperfectly benzoinated and will not keep.

Wax and oils also often enter as ingredients, which may likewise tend to rancidity. The petroleum products, paraffin, vaselin, albolene, etc., are also used considerably as bases, but it must be remembered that vaselin is not acceptable to every skin. Not at all infrequently an ointment made up with it will prove irritating, when the same ingredients with another base will be satisfactory.

Vaselin and albolene are often of value when it is desired to have only a lubricant, or a soft ointment to penetrate, as in the hairy scalp, but as a protective ointment it does not answer, unless materially stiffened with powder, as in the Lassar paste, or with wax, paraffin or lanolin.

Lanolin is rarely suitable as a base alone. At one time it was thought that it would be valuable as promoting absorption, when this was desired, but experiments have shown that it is far inferior to vaselin in this direction. Glycerite of starch often serves excellently as an excipient in irritable conditions, and also for general inunction after bathing, in dry conditions of the skin, but the susceptibility of some skins to glycerin must always be borne in mind, for to some it proves an irritant. Mutton tallow melted and thoroughly incorporated with enough oil, makes an excellent inunction for dry, harsh skin. Goose grease has been highly praised as an excipient, especially for parasiticides in the vegetable parasitic diseases. The newer proprietary bases, vasogen and endermol, serve good purposes and appear to be bland and unirritating.

Perhaps the most serviceable base for most ointments is cold cream, or the unguentum aquæ rosæ of the Pharmacopeia, but care must be exercised that it is well made, and that it is fresh, as it is liable to become rancid, and the water in it to evaporate. A little carbolic acid, 1 to 2 per cent., will preserve it for a considerable length of time.

A word in regard to diachylon ointment, so commonly associated with the name of Professor Hebra of Vienna. As directed now to be made, by melting together equal parts of lead plaster and olive oil, it is not as serviceable as that made after Hebra's original formula, for the oil is not decomposed in the process. Hebra advised that the ointment be made direct from the litharge, olive oil and water, the two latter in very much larger quantities, and the water double that of the oil. The water and oil are boiled, with constant stirring, and the litharge sifted in and the whole stirred until a good soft ointment is made.

### INGREDIENTS OF OINTMENTS.

While many of the standard ointments, as those of zinc, mercury, sulphur, etc., are of more or less value, used alone, undoubtedly much gain can be had by a proper and judicious combining of various ingredients to suit individual cases; although sometimes prescriptions are seen exhibiting a marvelous polypharmacy, useless if not harmful. The addition of carbolic acid, 1 or 2 per cent., is a most valuable adjuvant to many ointments, and ichthyol, 6 to 12 per cent., is also of great value as an antipruritic, as is also oil of cade. Salicylic acid is also serviceable as a promoter of the growth of healthy epithelium, and may be added to various ointments in a strength of from 3 to 6 per cent.

Many illustrations could be given of the advantage of combinations of ingredients in ointments. Perhaps the most striking is in regard to what is often known as Wilkinson's ointment for scabies, which may be further improved by the addition of tar ointment and liquid storax. It must be remembered that the ingredients of ointments must often be changed to suit individual cases, and it is not always safe to take prescriptions, of ever so high an authority, without considering well the ingredients and their suitability to the diseased condition and the particular skin under treatment.

### COMPOUNDING OF OINTMENTS.

The Dispensatory is very clear in its general and special directions in regard to compounding ointments, but, unfortunately, these are not always strictly followed, and one occasionally meets with ointments very poorly prepared. It is well, therefore, for the physician to inspect them from time to time, to be sure that they are fresh

and perfectly prepared. The most common error is in having gritty particles, which are often most irritating to the surface. I have seen an ointment of red oxid of mercury, ordered for use on the eyelids, in which there were hard, solid particles, suggesting red pepper, stirred into the base.

I have also frequently met with ointments in which there was much gritty substance, easily felt in rubbing them between the fingers. All mineral ingredients should be very thoroughly triturated in a mortar, with a few drops of oil, so as to make a fine paste, which is then thoroughly incorporated with the base. The more I see of practice the more I am convinced that a certain proportion of the want of success often occurring in connection with the treatment of diseases of the skin is owing to the faulty pharmaceutical prescriptions.

### STRENGTH OF OINTMENTS.

Both in health and disease individual skins differ very greatly in their reaction to external irritants, and one should always be cautious in making a first application to a skin with which there has been no previous personal experience. Irritation and harm is continually done to eruptions by too strong ointments, and it is always well to begin with a mild application, increasing the strength as indications occur. Undoubtedly the reputation which oxid of zinc ointment has acquired, and also possibly some of the patented and advertised ointments, lies in their bland, non-irritating character, which may be all that is required in any particular case.

One will make very little headway in treating most diseases of the skin who knows only oxid of zinc ointment, although with it alone he will probably do more good and less harm than with any other single ointment.

### PROPERTIES OF OINTMENTS.

The strength and composition of ointments must naturally vary very greatly with the purpose for which they are employed, and this should always be kept distinctly in mind in the treatment of any cutaneous condition. Ointments may be required for several very different purposes, and, according to their composition, their action may be: lubricating, protective, soothing, astringent, absorbent, stimulating, or antiparasitic. All of them may prove healing according to the nature of the complaint and the condition of the skin. These actions may be briefly considered.

*Lubricants.*—In many instances only a lubricant is wanted, and no mineral or other ingredients are required other than perhaps 1 or 2 per cent. of carbolic acid. Vaselin or albolene answers often very well, but a very valuable combination for general use is made as follows:

| | | | |
|---|---|---|---|
| R. | Lanolin | ℥i | 30 |
| | Boro-glycerin | ʒss | 15 |
| | Unguenti aquæ rosæ | ℥iii | 90 |
| M. | | | |

An ointment of mutton tallow and olive or cod-liver oil, which can be cheaply made at home, is very serviceable in ichthyosis and in conditions where large quantities are long to be used. Glycerite of starch is also very acceptable to many skins.

*Protective.*—The protective feature of an ointment is often a very important one, which will be spoken of more fully shortly, when considering the mode of application of ointments.

*Soothing Properties.*—In very many diseased conditions of the skin the soothing character of an ointment is that which is most required, and here it is that the ingenuity of the physician is often most severely taxed. Especially is this true when the element of itching is prominent, and when one remedy after another in ointment form will fail to give relief. In many of these instances some other application, in the form of a lotion or powder, will be more suitable.

In attempting to give relief from itching great care will often be necessary to avoid remedies which overstimulate the skin, for continually it will be seen that stronger and stronger applications are used with only irritating effect when a mild, soothing ointment will accomplish better results, especially if rightly applied. Such ointments as the following will often give relief after much more powerful remedies have failed:

| | | | |
|---|---|---|---|
| R. | Acidi carbolici | gr. v | 33 |
| | Pulv. calamini prep. | ʒi | 1 33 |
| | Zinci oxidi | ʒss | 2 |
| | Ung. aquæ rosæ | ℥i | 30 |
| M. | | | |
| R. | Ung. picis | ℥ii | 8 |
| | Zinci oxidi | ʒss | 2 |
| | Ung. aquæ rosæ | ʒvi | 24 |

In increasing the strength of ointments great care should be exercised and the effect carefully noted.

*Astringents.*—In certain cases more of an astringent action is required, and tannin, ergot, lead and bismuth may be added to meet different requirements.

*Absorbents.*—Again an absorbent effect is often desired in an ointment, and the preparations of iodin and mercury prove most valuable, as also tar and its various congenors.

*Stimulants.*—Stimulating ointments are also often called for, especially in more chronic conditions, and there are a large number of these which, however, must be used with caution and with a definite end in view.

Many of the ointments found in current literature may be thus classed, and while in skilled hands and applied just rightly, they can be used with safety and often with advantage; in a large share of ordinary cases they will often irritate the skin unnecessarily and be worse than useless.

*Parasiticides.*—Lastly, antiparasitic ointments often present considerable difficulty to those not greatly accustomed to their use, and frequently to the experienced it is a difficult matter to secure an effective ointment which is not too stimulating. Especially to the scalps of children the ointments often suggested are either too weak or too irritating. Chrysophanic acid, although a fairly efficient parasiticide, is being less and less used, owing to its objectionable staining of the skin, hair and clothes. The iodin preparations and soluble mercurial ointments, such as the oleate and diluted citrine ointment, together with salicylic ointments, afford the best results.

### MODE OF APPLICATION.

The mode of application and removal of ointments are often very important matters, about which far too little thought is given, for these have much to do with their good or bad effect. It is rare to find that specific directions have been given to patients, and yet, as it is often their first experience in this procedure, it is hardly to be expected that they will understand exactly the way to apply them in order to get the best results. The usual direction is simply to apply some of the ointment morning and night; and very commonly patients will diligently wash off one application before the next one is made, and not infrequently their faulty method of treating the skin will do much to counteract the benefit from the ointment used.

The mode of application of an ointment must vary greatly, according to the purpose for which it is used. Thus, when an ointment is used for lubricating, as in ichthyosis, xeroderma, or in a slight general eczematous state, the soft ointment should be taken on the palms and the body freely anointed, with friction, morning and night, until much of the ointment has been absorbed. Also in the treatment of scabies the appropriate ointment should be rubbed in, with the palms, over all the affected parts, and even for half an hour, until it has well penetrated the furrows made by the insect, and a considerable quantity should be left on, so that the underclothing becomes pretty well saturated with it.

On the other hand, however, on a more or less raw, eczematous surface such a procedure would be anything but beneficial, and the ointment should be thickly spread on the woolly side of lint and firmly bound on the part with as light a gauze bandage as possible. The same is true when it is applied to such a lesion as pemphigus or an ulcerating surface. In this latter case, however, it is often well to spread the ointment on very thin layers of absorbent cotton, held on the hand, which may be made to fit an uneven surface, and on removal they will come off easier, without tearing the newly formed granulations. This method is also peculiarly satisfactory in eczema about the anus, and in hemorrhoids, as it can be well tucked in and keeps its position.

Between these two extremes there are varying degrees of active application of ointments, and patients must be instructed just how to use them or much of the benefit will be lost. Thus, in parasitic diseases of the scalp, after clipping the hair very short, it is often well to apply the ointment with a stiff stencil brush, with considerable friction, working it well into the follicles, and the same mode of application is valuable in hard patches of psoriasis on all parts of the body.

Again, in old patches of eczema there is often much benefit from a greater or less friction with the finger, or often with a bit of flannel with the ointment, after which the patch is covered with the same spread on the woolly side of lint and bound firmly in place. In many cases of eczema or psoriasis about the hands it is almost impossible to make any progress unless the proper ointment is kept bound on the affected part all the time, night and day, for a while.

In itching conditions it may be necessary to renew the applications of ointment many times daily, and in eczema of small children the direction should be to replace it as often as it is rubbed off or the dressing becomes at all deranged.

In general itchy conditions, as pruritus and urticaria, it may be necessary to make applications of an antipruritic ointment many times day and night.

Often one sees very poor results in the using of ointments, resulting from the coverings or dressings which are placed over them. It is not at all uncommon to see a diseased surface to which ointment has been applied, covered with old linen or surgical gauze, which readily absorbs the greasy portion of the ointment very shortly, and leaves the affected portion dry, perhaps coated only with the mineral or other ingredient. This is not at all conducive to the healing of the part.

As has been already mentioned, the best results are obtained when the proper ointment has been spread thickly on the woolly side of surgical lint, or spread on very thin layers of absorbent cotton, and bound firmly on the part.

Many errors continually occur unless careful and explicit directions are given by the physician in regard to the removal of ointments and the subsequent treatment of the diseased surface. It seems to be the universal idea that such should be frequently washed, and one continually finds healing prevented by the application of soap and water, daily or oftener, when with proper use of the same ointment good results followed.

Rarely, is it advisable to wash surfaces which are at all raw, and all the cleansing necessary may be accomplished by the gentlest wiping with absorbent cotton. Much harm is also often done by a rough removal of ointments and dressings. When the latter adhere too closely it is generally because there has been too little ointment used or an improper covering made. If on removal of a dressing there is much ointment on the skin which it is desirable to remove, this can often be best accomplished by means of a dull knife, if gentle wiping with absorbent cotton is not effective.

### INDICATIONS AND CONTRAINDICATIONS FOR THE USE OF OINTMENTS.

It is not always an easy matter to know just the exact indications for the employment of this or that kind or strength of ointment, or, for any ointment, in preference to some other kind of dressing, and disappointment will occasionally follow the best directed efforts. In some acute inflammatory conditions of the skin lotions and powders suit far better than ointments of any kind, while in the more chronic conditions, with dry, rough skins, ointments are, of course, called for.

The exact kind and strength of ointment can be determined only after a careful study of the skin, lesions present, and their acute or chronic state or condition, and also after a full appreciation of the character of the skin of the individual under treatment.

In general, a thin, delicate skin, especially in one with a light complexion and hair, will bear and require much milder applications than a thick, tough skin, especially in a brunette.

The single or localized patch of chronic eruption will, of course, bear and require much stronger applications than an acute or generalized eruption. While the sensations of the patient will commonly determine the continuance or disuse of an ointment, and great harm is not often done by too strong applications, our efforts should undoubtedly be directed to securing an application which will be effective and accomplish the end desired, if that be at all possible.

Every point in a case should, therefore, be carefully weighed and the indications and contraindications looked for and appreciated, before determination is made as to the proper ointment to apply. The almost universal use of zinc ointment is largely explained by its relative harmlessness, on the principle of the Irishman's holy water, who explained that, "if it does you no good it will do you no harm." This, however, is a poor principle to go on in the treatment of diseases of the skin, which often require very active measures for their removal; and, as before remarked, he is very poorly equipped for their treatment who knows only zinc ointment.

In concluding these brief practical notes on the use and abuse of ointments, for the general physician, I must utter the caution that we have been considering only one side of the great subject of the treatment of diseases of the skin, and one which is often the least important. All local measures are constantly found to be ineffective unless proper and adequate internal and general treatment is adopted and earnestly and faithfully carried out.

# COVER-GLASS CULTURES AND THEIR POSSIBILITIES IN STUDYING EPIDERMIC FUNGI.*

J. FRANK WALLIS, M.D.

Instructor in Dermatology, Philadelphia Polyclinic; Dermatologist to the Southern Dispensary; Dermatologist and Radiotherapeutist to the Henry Phipps Institute.

PHILADELPHIA.

The popular methods for studying the macroscopic and microscopic appearances of the epidermic fungi have been limited to the tube and plate cultures and their modifications on various culture media, and the hanging drop of bouillon ably demonstrates the structural formation of the growth.

By the plate culture Sabouraud, Colcott, Fox and others have suggested a classification of the tineæ by their clinical appearances and their behavior on solid media. Although they have distinguished certain of the parasitic growths, yet their differentiation from some of the common molds which form cultures not unlike the growth of the trichophyton, can only be corroborated by the microscope.

Smears from cultures and cover-glass impressions only suggest stages of a growth and forms of fructification, without a complete history of vegetation.

The method which I have entitled cover-glass cultures consists in culturing the parasite on a cover-glass, using any nutrient media desired, placed in a moist chamber and incubated at the room temperature.

Fig. 1.—Moist chamber for cover-glass cultures.

The advantage of this method over the hanging drop consists in the facility for observing the development long after the possibilities afforded by the latter, and by providing a method of registering various stages by staining and mounting.

These specimens exhibit the beautiful arrangement of the formation of mycelia from spores, the growth of the colony above and below the media and the character of the fruit-bearing bodies or conidia, without disturbing the picture as it occurs in life.

The scheme consists in placing a drop or two of culture medium on a cover glass which has been passed through a flame. If solid medium is used, it must be liquefied by gently heating and then dropped on the cover glass with a platinum loop. The hair or scale is then embedded while the medium is soft. I generally prepare from four to eight cover glasses for each subject. These are cultured in specially prepared moist chambers, which consist of a shallow glass dish furnished with a circular barrier of glass, one-half inch in height, separating it into two distinct compartments and affording a shoulder over which is fitted a thin glass dish three inches in height. In the inner compartment are placed Petri dishes holding the prepared cover glasses (Fig. 1). Moisture is produced by keeping lime water in the bottom vessel outside the hooded barrier. This excludes the air and prevents evaporation of the medium. The dishes must be replenished with water frequently.

Fig. 2.—Hair from small spored fungus, demonstrating the process of budding.

Lime water is preferred, as it precludes the possibility of contamination. This is further prevented by packing a rope of cotton in the water around the cover, a precaution invaluable if the water should become vaporized. This has not infrequently happened in my experience.

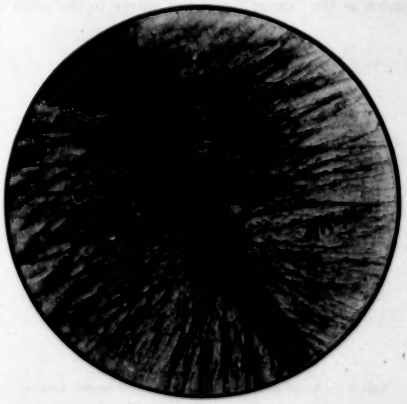

Fig. 3.—Same hair as Fig. 2, but at later stage.

I have sometimes found it necessary to prevent drying of the medium by placing the cover glasses on moist circles of blotting paper in each Petri dish.

Room temperature is sufficient for the growth of the epidermic fungi and less favorable for contaminations that flourish above that point. The average period of

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incubation is three days, but the microscopic study may commence after the first twenty-four hours.

A cover glass is held to a slide by a drop of water and the commencement of the growth observed. If sufficient progress of the culture is evident, it may be photographed before staining and mounting. Daily inspection should thus be made, and if further development occurs, a record of the same may thus be preserved.

This process permits the observer to study the growth

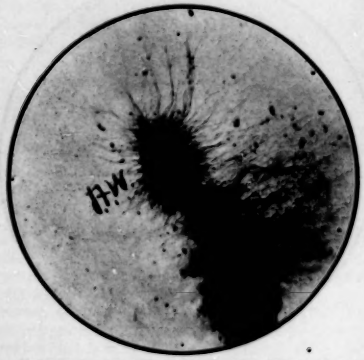

Fig. 4.—Hair from small-spored fungus, five days' growth, under high power.

of the living culture through all stages, from the formation of mycelium in and above the medium to the full development of a perfect colony, thus exhibiting the form and character of the fruit bearers and the manner of reproduction.

The removal of the culture by the platinum loop, known as the "smear," will not convey to the mind of

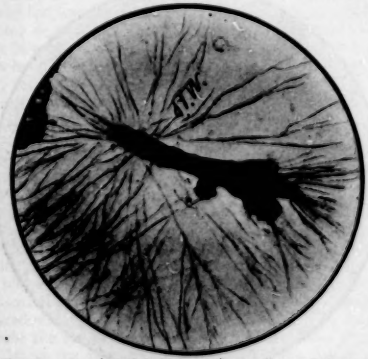

Fig. 5.— A cultured hair from the small-spored fungus.

the observer the process that he has wantonly destroyed. This difficulty Dr. Unna endeavored to overcome by a process which enabled him to study the growth of the living fungi, and which he published in 1888 in a paper entitled "Cultivation of Epidermic Fungi."

The plot consists in sealing a perforation in a slide with a cover glass smeared with vaselin. This cell is filled with some nutrient medium, a mixture of peptone gelatin and peptone agar being preferred. This he placed in a glass plate kept cool with ice. When solid, the cover glass was removed and half the jelly taken away by means of a platinum wire, forming a half moon. The slide was then placed in a perpendicular position, the free border thus formed then inoculated, permit-

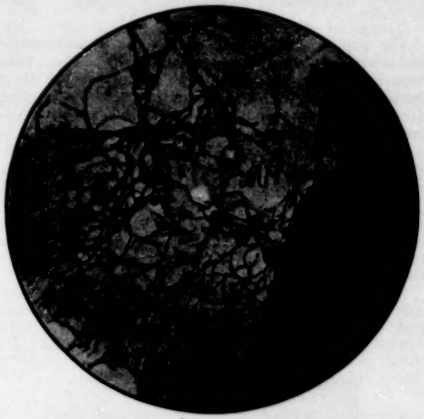

Fig. 6.—A hair of class 2, after five days' growth.

ting the aerial portion to grow upward in the empty half of the hole. About twenty of these slides were thus prepared and held upright in a glass vessel with grooved corks; the bottom of the vessel was covered with blotting paper saturated with a solution of sublimate. The method of Unna has the advantage that the growth can be viewed from the side, but it can not be preserved by staining and mounting, nor can the first stages of the development of a colony be studied.

The value of cover-glass cultures will be more fully

Fig. 7.—Cultured hair; multiple kerion class.

appreciated if we study the progress of living cultures, prepared slides and microphotographs. My work in this field has been purely experimental as yet, and I have made no attempts to classify the epidermic fungi; but I hope by the early publication of this paper to interest others and by their assistance to eventually establish a class for these parasites and discover the relation they bear to the common molds.

These results can be accomplished by combining the clinical picture and the microscopic findings with the cover-glass and plate cultures. In studying the trichophytons the three classes, according to the doctrine of Sabouraud, should be observed.

The microphotographs represent a few of the variations in the growth of the microsporon and the megalosporon, and the two forms of the common molds which not infrequently contaminate our cultures.

Fig. 8.—Hair illustrating an unusual form of kerion.

Figures 2 and 3 illustrate the development of the fungus from a hair which clinically and microscopically belonged to the first of the three classes of Sabouraud. Figure 2 represents a budding occurring on the shaft and the root after the first twenty-four hours' growth.

Fig. 9.—Another hair, illustrating kerion.

Figure 3 exhibits a sprouting of the bud later, showing a number of sprouts tapering from the hair to the margin of the culture, there expanding into numerous filaments; also a dense network of straight mycelial threads are seen radiating from the hair to the margin.

Figure 4 shows a hair after five days' incubation, taken from class 1. Figure 5 represents a cultured hair, also from the small-spored variety, after forty-eight hours' growth, with straight mycelium. Figure 6 shows a hair after five days' growth and corresponding to class 2.

Figures 7, 8 and 9 belong to class 3, and illustrate an unusual form of kerion, the lesions consisting of numerous small abscesses invading the greater portion of the scalp. In some instances they were not unlike favus, and a few were clinically diagnosed as such. The patches are conspicuous by the complete loss of hair and an apparent depressed scar. All cases have recovered in less than a year, with a complete restoration of the hair.

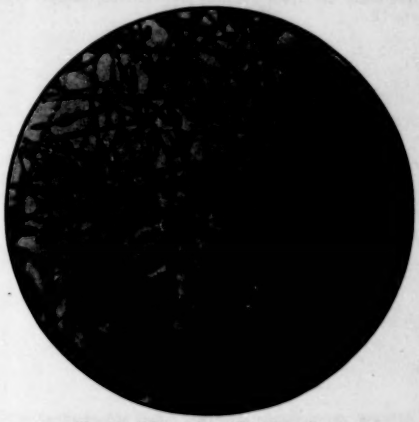

Fig. 10.—Ribbons of conidia after culture.

Fig. 11.—Ribbons of conidia in an uncultured hair.

Out of seven cases observed, five were girls; the eldest were 16 and 17 years of age. The history and description of these cases will be the subject of a paper which will be published later.

Figures 10 and 11 illustrate ribbons of conidia or chlamydospores, frequently seen in cover-glass culture. Figure 9 is a microphotograph of a culture, and is the

same process found in an uncultured hair after digestion in a solution of caroid and stained.

Figures 12 and 13 represent two molds. Figure 11 is a living unstained culture of pencillium photographed from above, and Figure 12 a variety of aspergillus. All specimens are from stained preparations, except Figure 12.

Fig. 12.—Unstained cover-glass culture of aspergillus.

## DISCUSSION.

DR. JAY F. SCHAMBERG, Philadelphia—I have seen some of the cover-glass preparations made by Dr. Wallis in this ingenious manner; the method appears to facilitate the study of the various pathogenic fungi, particularly those that develop in hairs. The photomicrographs illustrate the manner in

Fig. 13.—Stained specimen of aspergillus.

which the mycelial threads grow out through the hair shafts into the surrounding culture medium.

DR. W. S. GOTTHEIL, New York City—I had occasion to study contagious fungoid scalp disease when I was consultant to a large orphan asylum in New York some time ago. The trouble had been prevalent for some time before my attention was called to it; and 460 cases were found among the 900 inmates. Some idea of the importance of an outbreak of this usually trivial disease under these conditions is shown by the fact that it nearly led to the permanent closure of the institution; that it took eighteen months to eradicate; and that it cost $30,000 for the hire of and fitting up of buildings, physicians, nurses, etc. We did a good deal of culture work, and finally came to the conclusion that parasites indistinguishable from the trichophyton could be obtained from the scalps of all the children, even those who were apparently unaffected. Whether the fungus in these latter cases was attenuated or not I do not know, but we finally abandoned the culture test as entirely unreliable.

DR. L. DUNCAN BULKLEY, New York City—It is interesting to see, after many years, the same plan gone back to which many of us used before culture methods were known. Many years ago, twenty or thirty, I used the only way we knew of then, growing the culture on a plate and regulating the temperature of the room by the heater, and I have watched the growth of the parasite exactly as in the pictures presented by Dr. Wallis. I think this brings up a very practical matter and is a desirable statement. When a man doing scientific work shows the general practitioner who is not up on bacteriology in general how he may begin in a certain way with an ordinary slide and cover-glass and learn about vegetable parasites, this Section is doing what it is intended it should do, namely, helping the general practitioner to understand these things.

DR. J. F. WALLIS—I am interested in hearing that others have been before me in this work, especially Dr. Bulkley. I thought I was entirely original in this line of work until I read Dr. Unna's paper, published in 1888, and I still believe my process differs from others, as it enables one to preserve the various stages of the growth as well as to study the living colony. Dr. Gottheil's experience in finding cultures from normal hairs proves that growths from other methods are not reliable. It was this difficulty that suggested cover-glass cultures which enables one to observe the spores within the diseased hair develop into mycelial threads and this, I think, without doubt demonstrates the cause of the disease. To make the experiment more perfect I think it prudent to cleanse the diseased area of the scalp with cotton and alcohol, and this is an excellent scheme to collect the hair stubs, as they can be readily found on the cotton when they can not be seen on the scalp or epilated with forceps. This I also depend on as a test, and in my experience it is diagnostic. I depend on this test as a means of studying the progress of treatment.

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# NEOPLASM (EPITHELIOMA) OF THE PULP.*

V. A. LATHAM, M.D., D.D.S., F.R.M.S.
ROGERS PARK, ILL.

The great importance of this subject from a clinical as well as a purely pathologic point of view must be my excuse for presenting this rather incomplete study. It is with diffidence that I put the case on record, for in looking through the literature at my command I have so far been unable to locate any other like condition. If we exclude the hypertrophies which have been described under the heading of "Polypus of the Pulp or Tooth," then I am led to the supposition that this may be the first case recorded of an exceedingly rare condition. In reviewing the literature, Ziegler[1] speaks of "tumors of dental tissue formed in later life, and described by dental pathologists as odontinoids."[2] Accordingly as they consist of enamel, dentin, cement, or a combination of

* Read at the Fifty-fifth Annual Session of the American Medical Association, in the Section on Stomatology, and approved for publication by the Executive Committee: Drs. E. A. Bogue, Alice M. Steeves and M. L. Rhein.

1. Ziegler: Special Pathological Anatomy, section ix, p. 598. 1897.

2. Ulrich: Ueber feste Neubildungen in der Zahnhohle. 1852.

these, they are classified as enameloid, enamelodentinoid, dentinoid, dentino-osteoid, or osteoid.[2] They are all small, often to be recognized only by the aid of the magnifying lens. They are flat, round, pear-shaped or warty in appearance. The first three-named varieties grow from odontoblasts and arise from the pulp of the crown and from that of the root, generally in connection with

Fig. 1.—T. S. premolar pulp. ×143. Taken from a central area. Pulp stone, fibrous tissue, with cells showing cloudy swelling, fat.

caries, under metallic fillings, or as a result of periostitis, mechanical injuries, abnormal retention of teeth or senile degeneration. The osteoid form grows from the pulp and from the periosteum, and is developed from osteoblasts. "Sarcoma, fibroma and myxoma are in rare

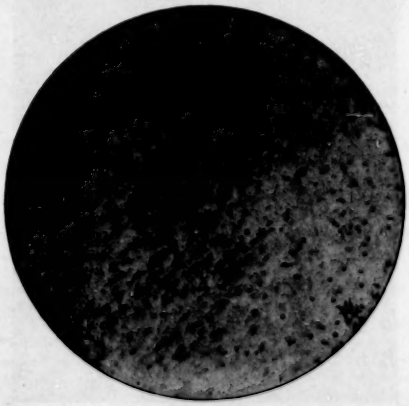

Fig. 2.—T. S. pulp. ×148. Showing polynuclear leucocytes. Early fibrous tissue with connective tissue corpuscles.

cases developed from the pulp as the tooth is being formed. Such growths, and particularly the sarcomata and fibromata, are, however, much more commonly derived from the periosteum of the dental socket or alveolar process, from the bone marrow or from the gum itself" (Ziegler).

Falkson[4] has described cases of cystadenoma arising from the rudimentary tooth papillæ and taking the form of a multilocular cyst, produced by cystic degener-

Fig. 3.—T. S. pulp. ×250. Showing cell infiltration, proliferation of blood vessels—fibrous tissue—more advanced than Figure 2.

ation of the dental follicles. The growth encloses newly-formed gland-like tubules and acini.

P. Bruns[5] and others have recorded certain rare instances of dental carcinoma, in which some of the epithelial cells of the tumor take on the appearance of enamel

Fig. 4.—Pulp. ×400. Connective tissue. Spindle cells. Thickening of inner coats of vessel.

germs and produce enamel.[6] Unfortunately, the term "sarcoma" has been used when a simple hypertrophy or

2. Schlenker: Zahn und Mundpflege. St. Gallen, 1883. Unterseh. über das Wesen der Zahn-verderbniss. St. Gallen, 1882. Pulpen Odontinoide. Hdbuch d. Zahnheilkunde. Verknöcherung. der Zahnnerven. 1885. Vierteljahrsschrift f. S. Wien, 1892.

4. Falkson: Development of Rudimentary Teeth and Cysts of the Jaw, V. A. 76, 1879.

5. Bruns, P., and Chibert: Adamantine Epithelioma. A. de méd. exp., 1894, with references.

6. Malassez. Epithelial Détritus Round the Roots of Teeth in Adults. A. de Physiologie v, 1885. Massin: Congenital Epithelioma Originating from the Enamel, V. A. 136, 1894.

polypus of the pulp has been meant, and this has been passed down from Wedl[7] and Salter[8] to Black.[9]

Boedecker[10] states that the only known tumor of the pulp is malignant myeloma, as first described by C. Wedl. Boedecker adds one other example, but unfortunately nothing was known concerning the history of the pulps affected.

In both cases, as seen by microscopic examination,

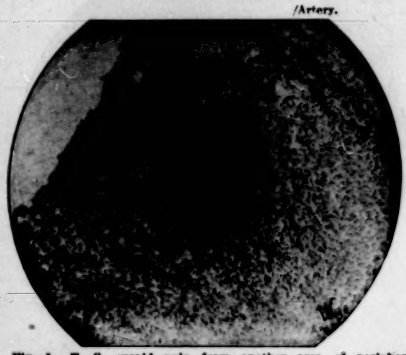


Fig. 5.—T. S. cuspid pulp from another area of periphery. Showing inflammatory cells, arteries and the margin free from odontoblasts. ×50.

they were the so-called round sarcoma, or, as Boedecker prefers to call them, lymphomyeloma. The term myeloma is used synonomously with sarcoma, some authorities objecting to sarcoma on account of its derivation from the word "sarkos" (Greek, flesh), whereas myeloma means what these tumors in reality are, medullary tu-

Fig. 6.—T. S. cuspid pulp. ×143. Showing horny or hyaline areas, here and there large cells and early masses with fibrous tissue resembling a scirrhus growth.

mors. When combined with epithelial as well as connective tissues, we must not forget that they are termed "medullary carcinoma," and in some cases may lead to a wrong diagnosis.

7. Wedl: Pathologie der Zahne, 1870. Transl.
8. Salter: Dental Surgery and Pathology, 1874.
9. Black: American System of Dentistry, p. 915.
10. Boedecker: Anatomy and Pathology of the Teeth, 1894.

Dr. Juan M. Alberdi,[11] Madrid, says, under affections of the dental pulp: "The organic affections consist in tumors, which reside in this organ. The tumors are hypertrophied productions, brought about by the simple hypergenesis of the normal elements of the tissue." The tumors are always the consequence of some lesion, espe-

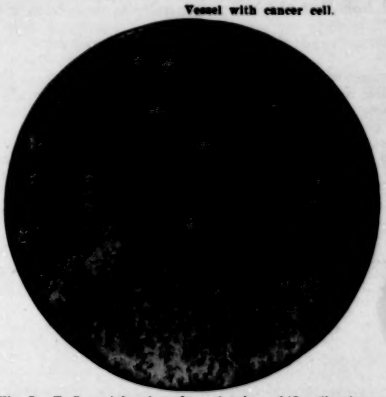


Fig. 7.—T. S. peripheral surface of pulp. ×143. Showing early whorls of cells, large and small. A bi-nucleated cell to the left, on the outer edge a vessel with a carcinoma cell in the wall.

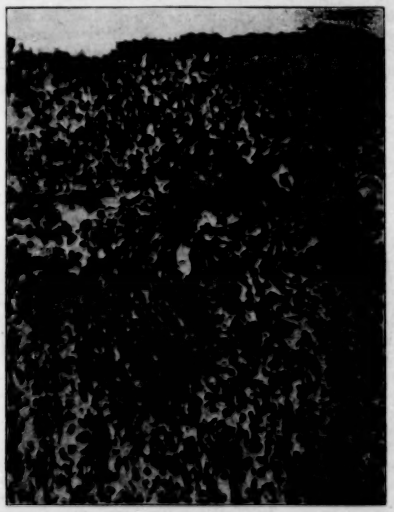

Fig. 8.—Pulp. ×240. Note the large cells in places of the inflammatory tissue around vascular areas.

cially penetrating caries, with exposure of the pulp. They are smooth, of a grayish color, and sometimes of considerable size, covered by a pellicle, which is only a thickening of that which covers the normal pulp. The treatment consists in removal of the pulp.

11. Alberdi: Dental Cosmos, p. 916, 1902, Third International Dental Congress.

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Dr. A. Pont[12] (de Lyon) mentions a case of tumor of the dental pulp without caries, which is not a tumor, pathologically speaking, but a polypus, or primary hypertrophied pulp with secondary inflammation, without power to form secondary dentin, but which has absorbed the ivory dentin, which properly belongs to the tumor division as seen so often in the osteosarcomata, and might incline one to place it in this group. "To what it was due is not clear, as it could not have been a chronic or hypertrophic pulpitis, there being no history of pain or caries. It might have been an aneurism of the pulp, but absence of hemorrhage excludes that, hence we will call it a hypertrophy of pulp with total absorption of the dentin without caries."

When we review the histology and gross anatomy of the pulp and note its close relation with the connective tissue origin, we easily see its liability to almost every known disease. Its peculiar formation enables it to supply the nutritive needs of the tooth with the vascular and nervous endowments, in which it is particularly rich.

The study of pulp diseases is best made by obtaining

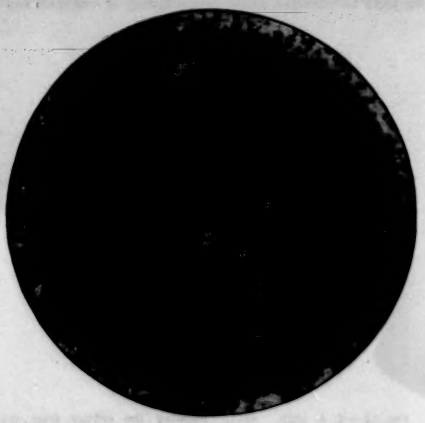

Fig. 9.—T. S. pulp nearer to the center. ×225. Showing the inflammatory condition and the scattered cancer cells.

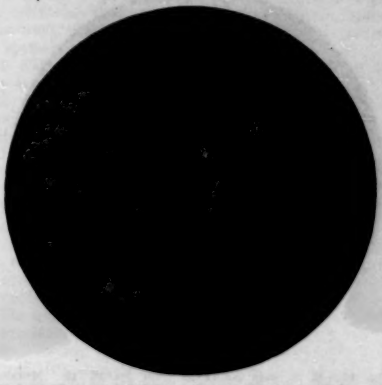

Fig. 10.—T. S. pulp following Figures 7 and 9. ×163. Showing medullary type of growth. Multinucleated cells.

the affected teeth immediately after they are extracted. Great care is necessary that an observer be not led by his preconceptions. Just opinions are arrived at only after a thorough examination, and by comparison with many other similar cases. Diseased conditions of the pulp are to be studied in the pathologic associations of inflammation, trauma and new formations.

Albrecht, in his monograph on "Diseases of the Pulp," follows these divisions: (a) disease of nerve; (b) disease of blood vessels; (c) disease of secretion. To-day this will avail nothing, as it is founded on no anatomic pathologic observation, and only confuses by the intermixture of terms which is bound to exist.

When we consider the position occupied by the teeth at the entrance of the alimentary tract, the change of temperature, varieties of food, continual changes in blood pressure as a peripheral area, and (in my mind one of the most important conditions to explain pathologic changes in their structure) liability to faulty development, fissures, cracks through acidity, abrasion, erosion, caries and the almost sure entrance of bacteria, as well as the relation and condition of surrounding structures as gingivitis, and the close effect of constitutional and systemic conditions of health, is it any wonder we have hyperemia, which may readily be followed by more or less pulpitis, the quick follower of any irritation? Not always does it happen, however, that pain does follow pulp exposure of the peripheral tubuli; even when the inner aspect of the tubes is seen in a hyperemic state, the pulp is often found in a fair state of resistance. The conductors of irritation, the odontoblasts, are common in their relationship to tubules and central organs; the filling up of these tubes and shrinkage of these cells break up the line of conduction, and this constitutes self-protection; then secondary deposits occur, and less pain usually follows. If the condition progresses, we may have a pulp exposure, with all the signs and symptoms of pulpitis. Pain is not necessarily an associate of the inflammation.

When a pulpitis has been of long continuance the pain seldom is found restricted to the tooth, but is apt to diffuse over all the trigeminal tract. Sympathetic neuralgias are not the sequences alone of pulpitis, one of the commonest causes being erosion just under the gingival margin.

Baume[13] considers pulpitis is rare in children, and only occurs when caries has attacked the organs before absorption begins.

There are many sequelæ of inflammation which bear on the etiology of neoplasms: 1. Chronic pulpitis, which may even be the primary condition. 2. Suppuration. 3. Hypertrophy. 4. Gangrene. 5. Periodontitis. 6. New formations. In chronic pulpitis we have little to distinguish between such as are inflamed or not, death of the pulp following very rapidly in some cases. There is no vital resistance, but an unresisting, decomposing, greasy mass, which easily explains the loss of pain during death of the pulp.

*Suppuration.*—This is indicated by a sense of fullness, uneasiness and weight, and sometimes pulsation or

12. Pont, A.: L'Odontologie, Sept. 15, 1902. Dental Cosmos, Nov., 1902. Transl. Ash's Quarterly Circular, Dec., 1902. Second report, with microscopic findings, in L'Odontologie, May 30, 1903.

13. Dr. R. Baume: Lehrbuch der Zahnheilkunde.

boring pain, which may be of slight degree in some cases, but may be accompanied by edema in and about the face in others. This is one of the commonest forms of termination of chronic pulpitis. Scanty watery pus, or pus of an acrid nature, is often met with where we have some constitutional disease, or where disease of the overlying parts has preceded or caused suppuration. When pus is sealed in a cavity for any length of time, without external agencies, we find it very much thicker, pasty, and with a vile odor of putrescense; microscopically it is very rich in fat.

Gangrene may rapidly follow suppuration, the nutritional cells becoming pus. The conditions due to congestion have been followed, and gangrene succeeds the high tension point of hyperemia, the breaking up of the cell walls, passage and transformation of the cells, the coloring the tooth, and the tissues melting down surely, if slowly, until all are destroyed; fat drops running in all directions, and even covering all the nerves and vessels, and ending in a dark colored, greasy, putrid mass—sphacelus, or tooth discoloration. Dry gangrene is meant when evaporation of the circulatory secretions of the tooth has occurred.

tients with polypus, and gives three layers of granulation tissue. 1. Outer layer of pus cells. 2. Wider zone of endothelial cells, and of capillaries with the appearance of gland strata. 3. Strong tissue, with enlarged blood vessels and containing many round cells.

When the teeth are extracted they are placed in 10 per cent. formalin and decalcified in 33 1/3 per cent. solution of formic acid. They are cut in half with a razor and the part wanted embedded in celloidin and stained by any dye, as alum-hematoxylin, and picrofuchsin (Van Giessen), or by Weigert's method.

In the head of the polyp no nerve fibers were seen, but in pulp chambers and root canals were nerve bundles, varying according to the degeneration found, which consisted usually of fibroid elements seen best in teeth whose pulps have been exposed by fracturing the tooth in faulty extraction. In the case under consideration there was little to note as being unusual.

**The patient, an elderly woman, aged 56, stout build, neurotic type, with signs of bronchial irritation and asthma (two sisters having died of cancer), called to see me regarding a partial plate. After examination, I advised that the few remaining teeth be extracted, as she gave a history of continued neu-**

Fig. 11.—T. S. pulp continued from Section 10. Medullary masses all through with a typical epithelial arrangement in the lower area. Fragmentation. ×137.

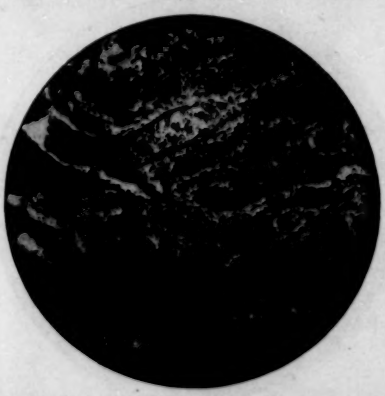

Fig. 12.—T. S. pulp. ×137. Showing the change from the closely-massed areas to the epitheliomatous cell nests and the pressure points surrounded by fibrous tissue—détritus.

*Hypertrophy.*—Inflammation may also cause a numerical increase in its constituents (hyperplasia), as well as hypertrophy, and form an enlarged mass so often and erroneously called a tumor. True, the increase in the new growth is allied to the histologic structure in its cell elements and becomes a polypus resembling gum tissue, only projecting from the *interior* of the pulp chamber. Microscopically, we see connective tissue, the vascularity being a characteristic feature. The nerve element being wanting, sensibility is often lacking—*unempfindlich*. Growth is rapid and often recurring readily, resembling malignant growths.

Salter speaks of a "sensitive sprouting of the pulp," differing very little from the above, except that it is clearer and softer and its vitality implies a more abundant nerve supply. It is often relieved only by extraction of the tooth.

Römer[14] has reported an examination of thirty pa-

14. Römer: Ueber Pulpa Polypen der Zahne. Corresp. Blatt. f. Zahnarste C. Ash. Berlin, Jan., 1892.

ralgia around the face and head. The teeth were scattered in the mouth, and only the right upper first premolar and cuspid seemed peculiar, the former having a queer reddish color, no carious spots or other evidences of decay. The mouth was very cleanly kept; slight irritation of the gingivæ around the teeth and a feeling of uneasiness about the premolar. On percussing, I found that the nerve was not dead, but evidently congested. On extraction, hemorrhage was free and the tooth seemed to give way reluctantly, with a feeling of pulling from the apical attachment (hyperplasia cementum). I dropped it at once in warm saline solution, and then extracted the cuspid, which was an oddly-shaped tooth, of a queer greenish-white tinge, so noticeable that the patient many times said people asked what was the matter with it. The cuspid was exceedingly difficult to remove, and on its coming out a dram of yellowish clear fluid oozed from the alveolus. The apex of the root was covered with a thickened layer of peridental tissue, and I wondered if it was an abscess sac that had ruptured; the foramen showed a whitish thread hanging as the pulp, and I saw no evidences of suppuration, but some hypercementosis. So I preserved it in salt solution. The socket I carefully cleansed with peroxid of hydrogen; there

was no effervescence to speak of, except when bleeding. Then I probed the cavity, and finally curetted it as thoroughly as I could, applied tincture iodin, and then 95 per cent. carbolic acid, and plugged with gauze and wool. This I did for nearly a week, and then allowed the cavity to close. It healed steadily on the slow and gradual withdrawal day by day of the gauze tampon. The patient so far (after three years) has had no recurrence nor trouble, and seems much more comfortable, using no upper plate yet, as she prefers to wait.

The teeth were removed from the saline solution and carefully opened, one longitudinally, and the cuspid transversely about half way, and the root longitudinally under normal fluid, till appearances were noted, and then it was changed to Zenker's solution. The cuspid had a fairly solid pulp, whitish-green. It looked like a fibroid, and was springy to the touch like a myxoma. I made microsections, and reproduce some photomicrographs from them. Taking the pulp at different levels, we find it complex and offering an unusual appearance.

Several points are worthy of note (Figs. 1-2): 1. Evidence of granulation tissue and pulpitis. 2. Slight sclerosis or fibrosis. 3. Slight hyaline degeneration in this area. 4. Small vessels surrounded by fibrous thickening. 5. Many polynuclear leucocytes were scattered through-

Fig. 13.—T. S. pulp. ×225. Same as Figure 12, only a higher magnification to show the epithelioma, with layers of cells. Nucleated characters plainly seen. Yeast infection.

out, in some places massing together like a round-celled infiltration and mixed in with bands of fibrous trabeculæ. (Figs. 2, 3 and 4.) 6. Near the outer edge were more deeply stained cells and better formed fibrous tissue, which gave a more homogeneous appearance to the cells, and at one side was a dark bluish irregular body, a calcospherite or pulp stone, longer than it was wide, and with a poorly stained area around it. (Fig. 1.) At one edge of the specimen was an almost glistening hyaline mass of cells, inflammatory, and with some cells, much larger than others and multinucleated, lining the fibrous stroma spaces, almost like scirrhus cancer. (Figs. 5 and 6.) Some of these cells were massed in cluster-nests, showing signs of considerable pressure; some cells staining a pale hyaline pinkish color, with the nuclei taking a darker stain, like cartilaginous cells, others appearing horny and taking no stain. A number of dyes were used, prominently hematoxylin and eosin, Van Giessen, and Ranvier's picrocarmine and logwood, picrofuchsin and nigrosin, safranin, Unna's polychrome-methyl blue.

A method that will be found very useful for gum tissue, polypi and epithelial structures is one modified and suggested by W. R. Smith, M.B.: Stain the section on the slide with hematoxylin and alum carmine, wash with water and put on the slide; dehydrate with absolute alcohol, stain a few seconds with a saturated solution of safranin in anilin oil water, of which most is removed with blotting paper, run over the section absolute alcohol for a few seconds, and immediately drop on clove oil; mount in Canada balsam in xylol or chloroform. Great care is required in the washing out; it must only be partial. Too little alcohol in the washing leaves the stain in the normal tissues, and does not differentiate the cell nests from these or from other epithelial structures. Too much alcohol removes the whole of the stain from all pathologic and normal tissues. If sections are cut fresh, it is much harder to stain with hematoxylin and to dehydrate. For fresh sections, soak a few minutes in 4 per cent. formalin or methyl alcohol and then use alum carmin and wash thoroughly in water, and dehydrate. The carmine stains faster if gently warmed. In studying these specimens we must clearly note:

1. Whether normal non-pathologic growths of epithelium in the form of processes are growing inward from an epithelial surface, e. g., gum, epidermis, mucous membrane, pulp or glandular organ which can resemble an epithelial pearl when cut in some ways.

2. Pathologic processes, papillary prominences, epithelial columns of homogeneous masses of epithelial cells with ovoid nuclei (papillary prominences of Lebert), which may be found in the surrounding tissue, and simulate cell nests. Neither of these correspond with Billroth's classical description of cell nests. What distinguishes these masses in their earliest known form? (Figs. 7 and 8.)

They appear at first sight like spherical or oval cysts from 1/100 to 1/500 of an inch in diameter, walled in by irregular fibrous tissue, and containing granular matter, nuclei or cells within them. They may be in cluster or cylindrical; their nuclei are shriveled or not visible; contents often granular.

The termination in horny material is an extreme form of specialization, and such is not the destiny of all cell nests. Indeed, the study of these extreme forms is much desired, for observers have thus been misled as to the true nature of the structure and mode of growth of cell nests in general.[15] (Fig. 13.) In all probability epithelial cell nests start from one cell, by division and subdivision, except in such a disease with large pearls, as seen by Hamilton.[16]

In Figures 7 and 8 we find a single cell with two nuclei standing out; around it various sized cells are massed, forming an early cluster, and surrounded by one outer layer of cells; in places, only a single cell and small cohorts of a few cells each. In some places we find here and there a thickened capillary or arteriole, showing well-marked cells lining the endothelium (Fig. 7); here and there a large cell and nucleus, or an alveolus filled with a cluster of cells, almost forming an island. (Fig. 10.)

We find masses like those just described mixed in with the small-celled infiltration of Virchow, indicating active proliferation and irritation, with the intermediate areas breaking down or staining only poorly, but with here and there well-marked nucleated cells. Lying near these masses we see some typical cell nests with granular

15. Woodhead's Pathology, second edition, 1885, p. 481; third edition, 1892, p. 174.

16. Text-book of Pathology, 1889, part 1, p. 466.

détritus among them, singly and in groups. How these cell nests grow is yet to be understood. Paget[17] is in favor of the theory of the growth being from one central cell, and Snow,[18] who, with others, gives us a theory of surrounding pressure, says "a small area of cells always appears as the original point of the globe, never a single cell." (Figs. 9, 10, 12.)

That this specimen is a carcinoma, epithelioma, is very evident. It certainly can not be classed, like Wedl's and Boedecker's cases, as a lympho-myeloma or round-celled sarcoma, for it certainly possesses epithelial nests, fibrous trabeculæ, and stroma, lined with large cells; granulation cells of the polynuclear type, degeneration and a reaction to dyes that marks the carcinoma group. (Figs. 6, 7, 11, 12, 13.)

In polypus of the pulp the parenchymatous connective tissue is the seat of the proliferation described as sarcoma of the pulp, in which the parenchyma is gradually destroyed, and indicated by the absence of nerves and the altered character of the blood vessels. As the sarcoma is located on the outside of the remains of the pulp, it serves in a measure to protect the latter."[19]

The study of the odontoblasts is a very vexatious one, as on account of their close relation to the dentin it is difficult to procure good sections without decalcifying the hard tissues, or preparing a tooth by the Koch-Weil process, which loses much valuable material; and the disarrangement of the pulp, unless this is done, renders it valueless.

In removing the pulp from its chamber the layer of odontoblasts clings tenaciously to the dentinal walls, either partly or as a whole, and hence we can easily understand how little progress has been made in this study. Black[9] states that this layer of cells seems to remain unchanged in acute inflammation until combined with suppuration. This seems, judging from my own work, to be hardly the case, for the cells are seen in every state of disease, and many times are not present, showing plainly the odontoblast cells act very similarly to the ciliated cells in bronchitis, and the falling off before the pulp is very much affected shows how easily any irritant affects the deep pulpal ends of the cells, and so causes atrophy and degeneration (Figs. 4 and 5.) Hopewell Smith also shows illustrations which correspond to my own slides of inflamed odontoblasts, showing in some a numerical hyperplasia. It would be an interesting study to make careful sections of pulps *in situ* and extracted from teeth excised in cases of neoplasms of the jaw, as myeloid sarcoma, epithelial growths, fibroma, epulis, etc., and so note if the pulp shows any metastatic deposits or any other pathologic conditions. I have a few specimens so made which exhibit many problems for elucidation, and especially as regards their origin.

In the specimen here presented it may be asked how and from what did this growth originate. The teeth were, to all appearance, sound; even with an aplanatic lens nothing could be seen but the change in color, which gave me the idea of a dead tooth, and the percussion note was negative. The sensitiveness and neuralgic pain pointed out pulp and peridental irritation. Stanley Colyer[20] shows a "burrowing epithelioma from the peridodontal membrane" which illustrates my section of neoplasm of the pulp very well, but he found the pulp dead and suppurating. His theory as to origin would certainly be questioned by many of the workers in carcinoma to-day. (Figs. 11 and 13.)

If we accept the theory that "like cells produce like," then how did odontoblasts produce epithelial cells, if the former originate from the stomodeal mesoblast, i. e., from the periphery of the dentinal or pulp organ? If odontoblasts could be proved as arising from the epiblast or hypoblast, many difficulties would be removed. Their nerve endings and their close relationship to the cells at the terminations of the optic and auditory or sensory nerves, not only as regards the physiology, but the morphology and pathology, their functions being allied somewhat to the glandular organs as in the stomach and intestine, namely, secretion, excretion and manufacture of chemical problems for metabolism, and the situation and better development of odontoblasts at the coronal cervical part show that we have here a close relationship of epiblast and hypoblast structures. This points to the nerve impressions passing through the tubules, and shows a closer relationship to the nervous system than is usually given.

In looking over the question of treatment we must note the use of the cautery, escharotics and iodin. In this instance, the best and only treatment was extraction, and if it had not been for the usual plan of study by breaking open the teeth and making sections, the great danger the patient ran would never have been recognized, and the chance of continual watching afterward, as well as the curetting which was done, would have been lost. It is well known that arsenic has been accredited with causing epithelioma, and J. Hutchinson[21] considers that many of the cases of multiple cutaneous sarcomata may be fairly attributed to the use of iodin and its salts. When we note the frequency with which iodin is used in dentistry, externally and internally, that many patent medicines contain it, and consider its use in the arts, photography especially, and in the preparation of the antiseptic gauzes, we can find another point for study. The frequent stimulation used by dentists for pericemental and periodontal irritation should cause an increase in hypertrophy, gingivitis and the papilloma and epulis forms of growth, to say nothing of the epitheliomata; but I think it can be shown we have less neoplasms in the oral cavity now than formerly, due, possibly, to better hygiene and methods of operating.

## CONCLUSIONS.

The points of interest are:

1. The freedom from urgent symptoms beyond neuralgia.
2. The great rarity of neoplasms of the pulp.
3. Lack of literature and careful pathologic and histologic study.
4. The want of further and more complete examination of the tooth structures, in relation to the pathology of neoplasms of the jaw.
5. The question of metastases in the pulp from peridodontal tumors.
6. The value of microscopic study should be urged in dental schools, as an aid to differential diagnosis and treatment.
7. The changes which may attend the killing of pulps by irritants and care to thoroughly cleanse the pulp canals.
8. To emphasize the better treatment and value of closing up fistulous openings in the gingivæ for fear of

17. Paget: Lectures on Surgical Pathology, third edition, 1870, p. 720.
18. Snow: Cancer and Cancer Processes, London, p. 65.
19. A. Hopewell Smith: The Histology and Pathological Histology of the Teeth, 1903.
20. Stanley Colyer: Trans. Odont. Soc., Great Britain, June, 1901, pp. 231, 242.
21. Archives of Surgery.

further infection, and irritation of the peridental membrane, which may cause the growth of neoplasms.

9. That all dead teeth should be discovered as early as possible and treated thoroughly with the best of surgical skill.

10. The frequency with which hypercementosis is found at the radical point of the dead tooth.

11. The embryonic origin of the various structures of the pulp.

12. That great care should be used when examining the dental structures in elderly people, and all causes of irritation removed.

13. From what did this epithelioma originate, since it is a primary growth, enamel or odontoblasts—most probably the nerve elements?[22]

808 Morse Avenue, Rogers Park.

## DISCUSSION

### ON PAPERS BY DRS. ANDREWS, TALBOT AND LATHAM.

DR. M. L. RHEIN, New York City—The deductions which Dr. Andrews has made I do not think are logical or warranted by what he has presented to our Section in the last few years. I have never taken the position attributed to me of believing that pulps were merely for formative purpose, and that in adult life they would be better out than in. I do radically disagree with the argument laid down by Professor Andrews that we are too prone to remove diseased pulps, and I believe Dr. Latham's conclusions show the error of conservative treatment of diseased pulps. One of the unfortunate things that meets the practicing dentist is the impossibility of making microscopic examination of pulps in a pathologic condition. We can only draw inferences and conclusions. There has come into practice in my locality in the last few years a pulp capping imported from Germany, known as "idoformagan." I have a large collection of radiographs taken from one to three years after this medium has been used, and in every instance macroscopic examination has shown an apparent degeneration of pulp tissue. It has been impossible to make microscopic examinations. In some cases the entire contents of the pulp canal have apparently been consolidated, so that, so far as a circulating medium, or pulp proper, it has disappeared up to within a close border of the end of the root. It is for this purpose that I have been for years a strong advocate of the aseptic removal of every portion of the contents, not only of the pulp chamber, but the canals where this is liable to occur, or where it is feared. The criticism made by Professor Andrews in his paper as to the results of removing the pulp and the subsequent deterioration of the cementum and pericementum tissue is one that I naturally disagree with, and the basis of that disagreement is the observation of following this practice for over twenty years. I do say that there is a vast difference in the manner and methods of removing pulp tissue and of taking care of those tissues afterward. The trouble is that the majority of the profession are not willing to give the time required to thoroughly remove every portion of the contents of the pulp. There is another procedure necessary after every portion of the pulp contents has been removed surgically; the introduction of proper therapeutic agents will remove so much of those fibrils that enter the canalicular portion of the dentin as to leave that tooth absolutely free from any danger of breaking down and infection. These agents should be followed by scientific sterilization of the canals. Finally, the hermetical sealing of those canals is one of the means which will keep the roots in healthy condition. Where this healthy condition does not continue it is, in the majority of cases, due to faulty operation. There is no excuse for a darkened tooth substance after the removal of tooth tissue.

DR. E. A. BOGUE, New York—Dr. Rhein has called attention to my misunderstanding of his position. I am glad to have him set right the question of removing a living pulp. He has just acknowledged what I wished to have him—that a living pulp can not always be removed instrumentally. This morning he said that he had been misinterpreted and made to say that he considered the pulp of no value after adult life had been reached, and it might better be removed than not. That was not my understanding, but I understand him to publish this statement, that after adult life is reached he regards the pulp, being a formative organ of the tooth, as of little further value. I agree with him in regard to preserving a pulp exposed by decay. I have never seen any capping or treatment of any kind effectual in restoring health, or a condition that would lead to restored health in these pulps, once exposed. Dr. Rhein told me on one occasion that he had removed a living pulp from a right lower molar. I have that tooth in my possession to-day. It was extracted five months after he thought he had removed the pulp. When brought to me, it had considerable of the pulp in it, showing that his skill was not sufficient to get it out; nor could any one else have done it.

DR. E. C. BRIGGS, Boston—I take the ground which I have taken before, which is that after adult life the pulp is more often a menace to the tooth than a help. That does not mean that every tooth should have the pulp killed. I think that after the able papers by Drs. Latham and Talbot we are appalled at the ills the flesh is heir to, and it makes one more convinced than ever that the pulp had better be out of the way. The surgical removal of the pulp is the thing that these men do not seem to consider. We know Dr. Andrews' ability and power of research, which I bow to with great respect; yet his deductions are not necessarily correct, and I do not agree with them. I surely do not mean to remove the pulp with acids and arsenic and such things that will destroy the tooth, but if the pulp is removed surgically it does not destroy the tooth any more than removing the appendix destroys the whole alimentary canal; so that I indorse what Dr. Rhein says in respect to removing the pulp with rather more emphasis than perhaps he puts on it.

DR. N. S. HOFF, Ann Arbor—Would you have removed this pulp that Dr. Latham reports, simply because of the symptoms?

DR. BRIGGS—I think I would. It is one of my preliminary treatments in interstitial gingivitis or pyorrhea alveolaris. I knew enough of the evils which are the result of this condition of the pulp before Dr. Latham and Dr. Talbot referred to the subject. I knew of the exostosis and the reverse action of the odontoblasts in removing calcareous matter from the root, and I knew of the pulp stones, and now all these other conditions only emphasize, to my mind, the importance of the surgical removal of pulp when there is any irritation.

DR. M. L. RHEIN—Dr. Briggs has stated my position, and I stand exactly on what I have published. Dr. Bogue has misunderstood what I have published. All that has ever been brought before this Section has shown us how difficult it is to find the pulps in adult life in a normal physiologic condition. As I understand Dr. Bogue, he advocates in the multiple rooted teeth the use of arsenic in preference to removal under anesthesia by cocain. I differ entirely with him. I think he has held up the case which he cites a number of times, and very erroneously. The posterior root of this lower molar had coalesced with the anterior canals, and there was a slight amount of this deposit between the two roots. This is the description of the tooth given me by Dr. Taggart of Burlington, Vt. After the pulp was surgically removed from the posterior canal and both anterior canals of these teeth were in such a condition that it was impossible to find a trace of any pulp tissue, the canals were subjected to a most vigorous treatment by sodium and potassium, which practically destroyed any vitality that remained in this coalescent site. The subsequent history of this case proves absolutely the correctness of my position. It does not follow that arsenic would have acted any better. On the contrary, I have histories of cases in which arsenic has failed to do its work, and where cocain enabled me to remove surgically the pulp from the canals of multiple rooted teeth where it was impossible to proceed after numerous arsenical applications had been made. Where arsenic would have been of any further value in a case of coalescence of these two roots I fail to see.

DR. A. W. HARLAN, New York City—It seems to me the sum-

ming up of Dr. Andrews' paper is the desirability of retaining the pulp in a tooth for other than formative purposes. Dr. Andrews' position on the retention of the vitality of the pulp when not diseased is probably correct. When a pulp becomes exposed there are certain changes that take place within a certain period which render that pulp as a normal organ valueless, and it might just as well be destroyed. Referring to the paper of Dr. Latham, I think perhaps the extraction of that tooth was correct, but I challenge the statement that there is no method of knowing whether the pulp has died, because we have ample means at present, although somewhat imperfect, of determining whether the pulp is alive.

DR. V. A. LATHAM—I said that our means of diagnosing dead teeth was not as yet very perfect or absolute.

DR. A. W. HARLAN—So far as determining the vitality or non-vitality of the pulp is concerned, I should contend that with heat, cold or electricity we can determine that absolutely. I was interested in Dr. Talbot's statement that abnormalities of the teeth occur from non-use. In the publication of Oakley Coles more than 30 years ago, there are shown a number of abnormalities of the pulp. It is absolutely certain that when a tooth is not in use it deteriorates either by elongation or by the growths on the external surface or the root, or that it gets out of position and the tissues around the root become so inflamed and irritated that it becomes a useless member. It is further absolutely determined that in the rapid eruption of the teeth, certain changes of the pulp take place. The chewing of tobacco and the holding of pipes in place also cause changes in the pulp. When the pulp is diseased we have a formation which may be in the shape of a cyst, and within that cyst we may have a deposit of calcareous matter which is a pseudo-form of tartar. There are growths around the ends of the teeth after the pulps die that may cause serious disturbance of the general system, so great as to result fatally. I would, therefore, conclude that when the pulp becomes exposed it should be destroyed, no matter whether it is surgically removed, or poisoned, destroy it so that you will get every vestige of it out. The root of the tooth should be filled and there should be a sufficient amount of contact with the opposing jaw to keep the tooth in use.

DR. J. L. WILLIAMS, Boston—Pulps that are nearly exposed and not diseased I have proved in years of practice can be saved and means taken to protect them; but, after a pulp has become inflamed I have learned not to expect its total recovery. It may be kept comfortable, but I suppose its nutritive quality is lost, and I often question whether it is worth while to tamper with it. Some years ago I saw a case in which the pulp was exposed, but not wounded. I tried a process of treatment, which I was the first to introduce and systematize. I made the softest possible antiseptic covering for it; I looked at it at the end of a month and again treated it. At the end of about a year I opened it. It looked perfectly clear, and in passing my instrument over the transparent secondary dentin there was no sensation. It was then filled. In two years the tooth decayed on the other side. There was some sensation on excavating the new cavity, showing that we should discriminate between an exposed pulp and a diseased pulp. I do not believe that when a pulp has its growth it does not contribute to the continued welfare of the tooth. When it can be made healthy it should be saved for the benefit of the tooth.

DR. E. C. BRIGGS—We should bring out clearly that the idea brought forward is not that one is to go around slaughtering pulps of teeth, but that, if things are in any way wrong concerning the teeth, the chances are that there is more menace from the presence of the pulp than without it. In answer to Dr. Bogue, I do not like to have the principle destroyed by his questioning one's ability to remove the pulp. I do not pretend that I can do these things, but I think the chances are that I or some other one will find a perfect way of doing this work. We are doing now a great many things that could not be done ten years ago. The underlying principle is not affected.

DR. E. A. BOGUE—Dr. Dawbarn, in a paper on malignant growths, speaks of an operation of his own devising, viz., excision of a portion of both external carotids; after ligation and in speaking of that he has two or three times wondered why we as dentists did not more often observe the incipient beginnings of cancer. He says that sarcoma and carcinoma are acted on quite differently by his operation. In sarcoma he has had no instance up to the present in which he has felt that his operation has been a failure. In carcinoma he regards the operation as helpful only for a short time. That brought to mind Dr. Latham's case, which would show that it was through the circulation that carcinoma took its way, while sarcoma may more particularly be called a local condition. I hope we may have a further report concerning Dr. Latham's case.

DR. TALBOT—There has been for several years a symposium on the dental pulp, and the results have been more than satisfactory. Dr. Andrews' paper is far-reaching, and I fear the importance of the paper is not understood. It has been discussed from the degeneration standpoint, but the fact has been lost sight of that the pulp at any period of life has its influence on tooth structure. The paper is most valuable, because it leads to the point of the necessity of the vitality of the tooth. If it be necessary, as Dr. Andrews shows, it must follow that diseases of the human body have a great influence on tooth structure. It must be admitted that there is a difference between supposition that certain conditions of the pulp exist, or that they have been found and actually demonstrated. Supposing a condition exists in the human body; to state it is one thing, to demonstrate it another. I wish all these papers on the pulp could be published in book form. It would be a most remarkable collection of papers.

DR. LATHAM—I came before this Section asking for a diagnosis, for advice, and also for bibliography. My main object was to bring my contribution before the Section for discussion as to the origin of the growth. I have held this case in hand for some three years, and only recently thought of publishing it. I have had experts in Germany and in England looking up bibliography for me, with no success. The papers are not published in a way easy to be found, especially since the *Dental Cosmos* stopped its bibliography, and I would suggest greater care in choosing titles. I ask from what tissue did this epithelioma arise, if the pulp is a mesoblastic structure?

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## ASCARIS TEXANA.

### A NOTE ON A HITHERTO UNDESCRIBED ASCARIS PARASITIC IN THE HUMAN INTESTINE.*

ALLEN J. SMITH, M.D.
PHILADELPHIA,
AND
RICHARD A. GOETH,
SAN ANTONIO, TEXAS.

The following note is based on two female specimens of an ascaris, submitted to Dr. Smith by Dr. Goeth, who had obtained them from Dr. Ferdinand Herff of San Antonio, Texas. Together with a number of other examples supposed to be of the same kind, they were passed in the intestinal discharge from an adult white man in care of the latter physician, the patient stating that for several years he had passed similar parasites from his bowel (some of which were slightly larger than the two samples given his physician, but apparently of the same type), and complaining of his inability to rid himself of the pests, which, however, gave him no particular physical inconvenience. Efforts to obtain other specimens since last year when these were passed have thus far been without success, and the absence of a male example renders the establishment of the full specific description impossible for the present. Moreover, the two specimens,

* Read at the Fifty-fifth Annual Session of the American Medical Association, in the Section on Pathology and Physiology, and approved for publication by the Executive Committee: Drs. V. C. Vaughan, Frank B. Wynn and Joseph McFarland.

when sent by Dr. Goeth, had been mounted, unstained, in balsam on glass slides; and, from the influence of the reagents used in the balsam-mounting medium, as well as from compression and division of each specimen into three lengths for convenience of mounting, were not in favorable state for detection and clear recognition of many of the finer details needed in the study. Sufficient data may, however, be determined from the material in hand to surely differentiate the worm from the known ascarides of the human intestine, and to make the idea of its identification with other known members of the genus improbable. Attempts to stain one of the samples for better definition of the minute structure have not been attended with any success.

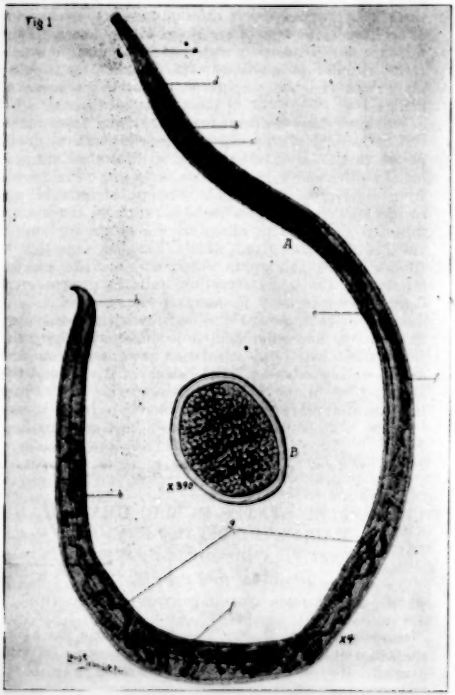


Fig. 1.—A. Low amplification of female *Ascaris texana*: a, esophagus; b, intestine; c, longitudinal cuticular band; d, poison glands; e, vulvar orifice; f, uterus containing ova; g, ovary; h, anus. B. Ovum.

We hesitate to insist on the absolute correctness of the view of the novelty of the species until the description following may be verified by study of fresh material and male specimens; but we feel that from the data in hand the specimens presented may at least be tentatively accepted as constituting a new species, and would suggest that it be known as *Ascaris texana*.

The two specimens closely agree grossly and minutely. They measure, respectively, 58 and 60 mm. in length, and at the thickest part 1 and 1.5 mm. in thickness (taking no account of modification from shrinkage from the preserving and mounting reagents employed and the widening consequent on compression of the specimens). One should recall in this connection the patient's statement that other samples discharged ranged slightly larger than the ones described.

The specimens when fresh were practically colorless, or slightly yellowish, cylindrical or subcylindrical, tapering through a long anterior half to the head, rapidly tapering from close to the anus to a slightly dorsally curved and mucronate tail, the thickest part of the worm being in the region of its posterior third. The cuticle is finely striated transversely, and in the compressed specimens one lateral longitudinal band may be clearly made out. No alæ as in *Ascaris mystax* are recognized anteriorly or posteriorly. The three lips of the genus *Ascaris* are well developed, broadly conical interlabia being present, reaching close to the level of the oral membrane between the lips. The lips are of a rudely hexagonal shape, the base forming the sixth side and the lateral and basal angles being rounded. The anterior border is slightly concave and the anterolateral more distinctly so, the posterolateral convex; the anterior and posterior the smallest. On the internal margin of the anterior border of the lips are a number of small tooth-like papillæ, the remainder of the free borders being entire and smooth. The superior lip is slightly larger than the inferior ones, although the difference is apparently but little. The pulp of this lip rises from the esophageal musculature, passing forward close to the anterior border of the lip, where it is subdivided by a depression, the "saddle," into two paired lobes, each of which bears four or five lobules of papillary appearance, which extend anteriorly or anterolaterally. An unpaired lobe projects on the inner surface of the lip in somewhat of a keel shape toward the base of the lip, giving the usual triangular shape of a transverse section of the lip at this level. Each of the inferior lips is provided with a pulpa symmetrical with its fellow, the pulpa of the superior lip being bisymmetrical, i. e., its lobes are symmetrical or paired with

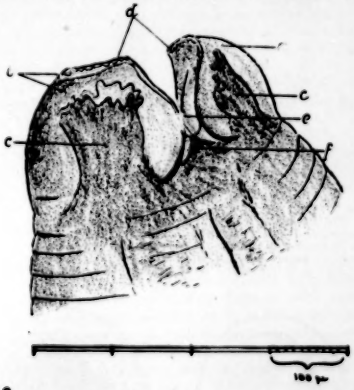


Fig. 2.

Fig. 2.—Lips of *Ascaris texana* (camera lucida drawing from compressed specimen): a, superior lip; b, inferior lips, the left overlying the right; c, pulpa; d, denticulate anterior margin of superior and right inferior lips; e, keel of superior lip on inner surface; f, interlabium.

each other. The oral cavity opens directly into the muscular esophagus, of long, slender flask shape, terminating 31 mm. back of the base of the lips; this opens apparently by a valve arrangement into an intestine, which runs a nearly straight, slightly sinuous course to the posterior end of the worm, terminating at the anus, close to the tail on the ventral side. Along the esophagus and anterior end of the intestine for a distance of 12 mm. from the base of the lips, apparently in two

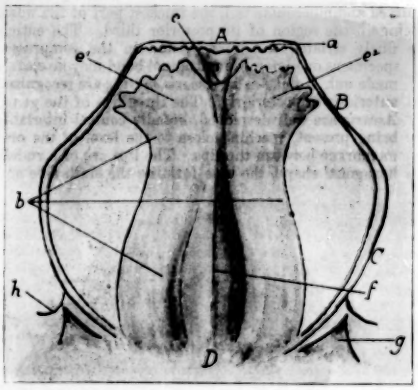


Fig. 3.—Inner aspect of superior lip (constructed): A, B, C, D, anterior, anterolateral, posterolateral and posterior sides of same; a, denticulate anterior internal border; b, pulpa; c, saddle; $e^1$ and $e^2$, paired lobes with lobules; f, unpaired lobe forming keel of lip; g, interlabium; h, border of interlabial oral membrane.

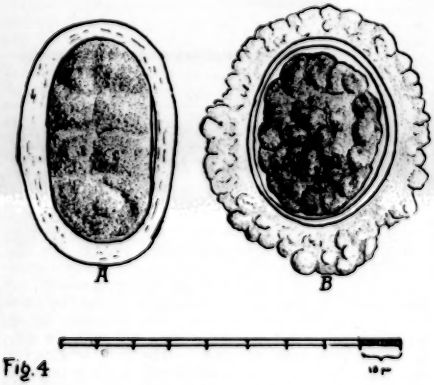


Fig. 4.—A, Ovum of *Ascaris texana* drawn from specimen in uterus. B, Ovum of *Ascaris lumbricoides* drawn for comparison from examples taken from uterus of formaldehyd specimen.

masses, may be traced a finely granular material which probably represents the so-called "poison glands" of the ascarides; and for some distance along the intestine a fine granular exterior probably represents the remnants of digestive cells. The anal opening is a transverse slit, 1.150 mm. from the tip of the tail. The number and arrangement of pre-anal and post-anal papillæ are doubtful from the specimens in hand; two well-marked post-anal ones are clear, 0.5 mm. back of the anal orifice.

The sexual orifice is not certainly determined because of the condition of the material; but what is regarded as such, because of the prominence of the lips and the appearance of sphincter-like folds in the cuticle about it, is situated 2 cm. back of the base of the lips, just anterior to the level of the uterine canal. In neither of the specimens studied could the vaginal tube be traced. There are two ovaries, anterior and posterior, plicated along the intestine and uterine canal. Within the latter in both specimens are large numbers of ripe and often well-segmented ova, colorless, provided with a thick wall, without visible external marking or envelope as are met in the eggs of certain of the ascarides. They measure 60x40 microns, with variations of 4 to 5 microns in different ova measured. The interior is granular, no nuclei being appreciable in the specimens at hand.

Whatever other features may later from fresh material be learned of this worm, it may be without doubt placed in the series of ascarides, with toothed anterior labial border and with interlabia, a feature which, aside from other gross and minute features, excludes all ascarides at present known to be parasitic in the human intestine (which with others of the genus are unprovided with either), and which, likewise, separates it from a considerable group which, with auricles and interlabia in the labial structure, fails to present such denticulate margins. From other examples of ascarides which, like it, present six-sided lips with denticulated free borders and interlabia, it is distinguished by the fact that it has the denticulation present only on the anterior concave border, by the shape of the lip and the arrangement of the pulpa of the superior lip. From its general appearance it is most closely allied to ascarides known to be parasitic in certain birds and reptiles.

## Special Articles.

## THE UNITED STATES PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

### PART I. A HISTORICAL SKETCH.

(*Continued from Page 462.*)

#### (D) DR. WYMAN'S ADMINISTRATION (1891 TO THE PRESENT).

Surgeon-General Walter Wyman had done much for the sailor and for the service before he became surgeon general. He had frequently called attention to the physical conditions affecting seamen of the merchant marine, and after he became surgeon general was instrumental in having laws passed for their benefit, notably one for the relief of the deckhands on western river boats, who, by reason of inadequate quarters, were unprotected from the inclemencies of the weather. When in command of the Marine Hospital at Baltimore, he exposed the cruelties to which crews of oyster boats in Chesapeake Bay were subjected, and succeeded in causing amelioration of their condition. As surgeon in command of the Marine Hospital at New York, he recommended and established, with the consent of Surgeon-General Hamilton, a laboratory for the study of bacteriology and pathology, which was later moved to Washington, and which, under his fostering care as sur-

EDITOR'S NOTE.—This article began July 30. The Army Medical Department was discussed May 7, 14, 21, 28 and June 4.

geon general, developed into the splendid institution now known as the Hygienic Laboratory of the Public Health and Marine-Hospital Service.

As surgeon general his intense interest in the physical welfare of the sailor in no wise lessened, and he originated and carried to consummation the idea of a sanatorium for consumptive sailors at Fort Stanton, New Mexico.

Owing to the lack of a strong federal quarantine law, the United States in 1892-3 faced one of the most dramatic crises in its history. The dreaded specter of Asiatic cholera emerged from the filth of its oriental home, and appeared in the seaports of western Europe. The history of past appearances of cholera in European seaports showed that an epidemic in America invariably followed, and the prophecy was made everywhere that history would repeat itself. The outbreak of an epidemic of cholera in our seaports at this time would have resulted in the utter failure of the great Chicago Exposition of 1893, and the failure of this exposition would have carried financial ruin to thousands, and caused commercial paralysis throughout the entire country. To meet this emergency the quarantine law of 1878 was lamentably weak. The chief danger existed in immigration, and the weak spot in our quarantine law was the lack of federal authority to enforce uniform requirements in regard to inspection and disinfection of ships and baggage.

The power of the National Government, as expressed in that law, was restricted to aiding state and municipal quarantine authorities in the exercise of their functions. The power to frame regulations under this act of 1878, it is true, rested in the Secretary of the Treasury, but such regulations must neither conflict with nor override any state law or regulation existing or which might be enacted. The proper uniform disinfection of immigrants' baggage being impracticable, it became evident that the only other effective safeguard would be to temporarily suspend immigration. In this crisis Surgeon-General Wyman searched the quarantine laws of the various states for some uniform requirement which would accomplish the desired result. He found that in every seaboard state a law existed providing for the detention of suspected vessels for periods of twenty or more days. Therefore a government circular demanding the detention of immigrant vessels from cholera-infected seaports for a period of twenty days would not be inconsistent with state laws, but, on the contrary, would be aiding state quarantine laws already in force. Accordingly, the surgeon general prepared a circular providing for detention of immigrant ships from infected ports for a period of twenty days. This circular was promulgated by President Harrison, and while it seemed like a reversion to the obsolete practice of Venetian quarantine, it was in reality expected to temporarily suspend immigration. It was rightly surmised that the immense expense attendant on twenty days' detention of immigrant vessels would so minimize the steamship companies' profits that they would be compelled to suspend the traffic for the present. The effect was pronounced and startling. Immigration was practically suspended, and the menace of a great cholera epidemic was removed.

The absolute stoppage of immigration from any country, even temporarily, was then, as now, deemed inadvisable for obvious reasons, yet this circular effected the same result without giving ground for valid international complaint. To supplement the system of detention, or virtually exclusion of immigrants at our seaports resulting from the circular and prevent evasion of the law, it was necessary to establish a quarantine inspection service along the Canadian border. By the courtesy of the Canadian government, officers of the Marine-Hospital Service at Quebec examined immigrants destined for the United States, and supervised the disinfection of their suspicious effects. The inspection on the Canadian border extended from Maine to Dakota at all points of railroad crossing. This rather drastic remedy was only intended to protect the country until Congress should meet and have an opportunity to devise an adequate system of protection under federal authority involving less restriction on commerce.

Congress recognized, when that body reassembled in December, 1902, the grave national danger from cholera which had been temporarily averted by the President's circular, and as a consequence passed a law, approved Feb. 15, 1903, entitled "An act granting additional quarantine powers and imposing additional duties on the Marine-Hospital Service."

This act of Feb. 15, 1893, placed all matters pertaining to national quarantine in the hands of the service, and provided for the formulation of uniform regulations to be observed by all state and local quarantine authorities in preventing the introduction of epidemic diseases from foreign countries, and the spread of such diseases from one state or territory to another.

The regulations were promulgated by the Secretary of the Treasury, and the Surgeon-General of the Marine-Hospital Service was charged, under the direction of the secretary, with the performance of all the duties in respect to quarantine and quarantine regulations, which were provided for by the act. The law further provides that if the states or municipalities should fail or refuse to execute the quarantine regulations, the President should appoint a proper person to execute them.

Under the provisions of Sections 2, 3 and 4 of this act, medical officers of the Marine-Hospital Service have been detailed to serve, and are now on duty, in connection with the consulates at various foreign ports, and from them all necessary information is received relative to the sanitary condition of vessels, cargoes, crews and passengers about to depart for the United States.

By this means the ordinary consular bill of health is made to be a certificate of actual observation by a responsible officer whose sole duty is to aid in the prevention of the introduction of contagious diseases into the United States.

Under these new laws and regulations, Surgeon-General Wyman instituted an inspection of all state and local quarantines, requiring them to conform to the standard of the Treasury Department. Many of these state and local quarantines have since been transferred to the service, and the remainder have, under federal supervision, enforced regulations, affording adequate protection to the country.

During the administration of Surgeon-General Wyman, the public-health work of the service has increased rapidly, not only in the duties of national quarantine, but in other directions.

By the immigration act passed in 1891, and also by the subsequent immigration acts of 1893 and 1903, all incoming aliens must be examined physically by medical officers of the United States Public Health and Marine-Hospital Service. The importance of this duty from the standpoint of public health can scarcely be overestimated. It is essentially a public-health function, and, properly performed, excludes a class of aliens which, if admitted, would be not only detrimental, but dangerous.

On March 12, 1896, the chairman of the Committee on the Merchant Marine and Fisheries forwarded to the Secretary of the Treasury a letter, inclosing schedules of provisions for seamen, in bills then pending, and requested that they be referred to the Surgeon-General of the Marine-Hospital Service for his opinion and suggestions for their amendment.

In accordance with this request, the surgeon general convened a board to prepare a proper schedule or scale of provisions to be allowed and served out to crews of merchant vessels during the voyage. With a few minor changes, Congress accepted the schedule, and it was enacted into law. The measure protects the merchant sailor while on long voyages by compelling masters to furnish him with proper and sufficient food.

The act further requires that "the foregoing scale of provisions shall be inserted in every article of agreement, and shall not be reduced by any contract, except as above, and a copy of the same shall be posted in a conspicuous place in the galley and in the forecastle of each vessel," and provides for a survey by three persons, one of whom, if possible, shall be a medical officer of the Marine-Hospital Service, to pass on the provisions furnished, when complaint is made, as provided for by the act.

Surgeon-General Wyman, early in his administration, pointed out the perennial peril to which the United States was subjected because of the continued prevalence of yellow fever in Habana, due to remediable causes. He suggested, in his annual report for 1896, that an effort be made through diplomatic channels to induce the Spanish government to cleanse Habana. The suggestion was acted on by the Department of State, and Secretary Olney, in his letter to the Spanish minister at Washington, plainly set forth the insanitary condition of Habana and the anxiety it caused the United States. The Spanish authorities did little or nothing, however, and the sanitary regeneration of Habana was not accomplished until American occupation of the island several years later. The surgeon general did not confine his efforts to Habana alone, but maintained that all nations possessed certain international obligations in preventing the spread of epidemic disease from their seaports to the ports of foreign countries, and this idea of international co-operation in the sanitation of seaport cities he has never relinquished.

In an article published in the *Forum*, February, 1899, Surgeon-General Wyman thus expresses his views on international co-operation for the prevention of epidemic disease:

> There is little doubt that, with American predominance in the island of Cuba, the dreaded scourge of yellow fever will be suppressed and will, in course of time, almost if not entirely, disappear. But a still further advance should be made. That great pestilential center, Havana, even if purified and freed from yellow fever infection, will still be subject to reinfection from other ports in Central and South America, which are in almost as bad a condition. It is, therefore, worth serious consideration whether anything less than the total elimination of yellow fever from the American continents should be attempted; and it should be remembered that this disease is practically limited to the western hemisphere.
>
> It is not pure optimism to suppose that an international sentiment may be awakened which will cause yellow fever in a given port, and the faulty sanitation which it implies, to be an opprobrium on the government in possession of the offending port. Every nation should be held responsible for conditions within its borders or dependencies, tending to propagate epidemic diseases and to threaten other nations with which it expects to maintain a friendly commerce. As soon as the cities of our own dependencies are freed from fever by sanitation, it would be appropriate for this government to invite in convention representatives of each of the other American republics; the convention to be composed of public sanitarians, civil engineers and financiers, whose duty it should be to prepare a treaty providing for the examination of the chief yellow fever ports by a commission representing the republics concerned. Each country should obligate itself to put into effect the measures recommended by this commission, or measures of its own which would meet with the commission's approval.

In accordance with his views, Surgeon-General Wyman, in 1901, submitted to the International Conference of American States, held in Mexico, a provisional plan for international sanitation of cities.

This plan had for its object the elimination of yellow fever from seaport cities or towns which are or have been endemic habitats of yellow fever, or which are liable to become foci by reason of geographical situation, commercial relations or bad sanitary conditions. The remedial measures suggested involved the subjects of sanitary improvement of harbors, sewerage, soil drainage, paving and elimination of infection from buildings.

The plan also recommended the formation of an international sanitary commission, to consist of five members, no two of whom should be residents or citizens of the same republic. They were to be appointed by the Bureau of American Republics and serve one year, when they might be reappointed or new members selected to succeed them.

The conference foresaw that by uniform application of modern sanitary methods to the seaport cities of this continent, as suggested in the surgeon general's plan, quarantine restrictions could be reduced to a minimum or totally abolished.

The resolutions, as finally adopted by the Conference of the American States, while they did not embody the surgeon general's plan in its entirety, were largely based thereon, and went far enough toward the ideal set forth to greatly encourage sanitary improvement in seaports which are a menace to the health of other countries.

The conference provided for the assembling of a convention of representatives from the health authorities of the various republics, as well as for the creation of an International Sanitary Bureau, with permanent headquarters at Washington, to encourage and carry out the measures of the general convention.

The result of the First International Sanitary Convention, which was held in Washington in December, 1902, was to secure co-operation between the various republics of the Western Hemisphere in the work of cleansing seaports and concerted effort toward the eradication of epidemic diseases. The convention recognized the interest and initiative displayed by Surgeon-General Wyman by electing him president, which carried with it the chairmanship of the International Sanitary Bureau which was organized at the same meeting.

This bureau promises to become a potent factor in the maritime sanitation of the future, and Congress, at its last session, appropriated a sum of money to cover the United States' quota of the fund for its maintenance.

As indicated in the foregoing historic sketch, the Marine-Hospital Service had for years exercised the powers, performed the duties, and carried successfully the responsibilities of a public-health service. It had suppressed epidemics, rigidly carried out the physical requirements of the inspection of immigrants, maintained an efficient system of national quarantine at all points of danger, enforced quarantine regulations in do-

mestic, insular and foreign ports, published weekly sanitary reports and statistics from all parts of the world, and conducted scientific investigations of epidemic diseases. In 1902 Congress determined to make the service in name what it had been in reality for years—the Public Health Service of the United States—and accordingly enacted (into law) a bill "To increase the efficiency and change the name of the United States Marine-Hospital Service."

This act of 1902 was the first legislation directed toward securing harmonious co-operation between the national and state health authorities. The necessity of such co-operation had long been recognized and desired, but was difficult of achievement by reason of our republican form of government. It had been difficult for the National Government to extend its operations within the borders of a state without appearing to infringe on the prerogatives of that state, and it had been equally difficult for the states, individually or collectively, to seek aid from the Federal Government without appearing to surrender authority reserved to them by the National Constitution. During the century of development in which the Marine-Hospital Service became in reality the Public Health Service of the United States, the state health organizations had also developed and improved, and a sentiment of respect, one for the other, had been established, replacing the old feeling of distrust and opposition.

The law of 1902 not only confirmed the Marine-Hospital Service as the National Public Health Service, but also provided a plan for the utilization of both national and state health authorities in effective co-operation.

Section 1 provides that in future the service shall be known as the Public Health and Marine-Hospital Service of the United States. Section 3 provides that medical officers in charge of the bureau divisions of marine hospitals and relief, domestic quarantine, foreign and insular quarantine, personnel and accounts, sanitary reports and statistics, and scientific research, shall be, while thus serving, assistant surgeons-general.

Section 4 authorizes the President "to utilize the Public Health and Marine-Hospital Service in times of threatened or actual war to such extent and in such manner as shall in his judgment promote the public interest without, however, in any wise impairing the efficiency of the service for the purposes for which the same was created and is maintained."

Section 5 provides that, "There shall be an advisory board for the Hygienic Laboratory provided by the act of Congress approved March 3, 1901, for consultation with the Surgeon General of the Public Health and Marine-Hospital Service relative to the investigations to be inaugurated, and the methods of conducting the same, in said laboratory. Said board shall consist of three competent experts, to be detailed from the Army, the Navy and the Bureau of Animal Industry, by the Surgeon General of the Army, the Surgeon General of the Navy and the Secretary of Agriculture respectively, which experts, with the director of said laboratory, shall be ex officio members of the board, and serve without additional compensation. Five other members of said board shall be appointed by the Surgeon General of the Public Health and Marine-Hospital Service, with the approval of the Secretary of the Treasury, who shall be skilled in laboratory work in its relation to the public health, and not in the regular employment of the government.

Section 7 provides that, "When, in the opinion of the Surgeon General of the Public Health and Marine-Hospital Service of the United States, the interests of the public health would be promoted by a conference of said service with state or territorial boards of health, quarantine authorities, or state health officers, the District of Columbia included, he may invite as many of said health and quarantine authorities as he deems necessary or proper to send delegates, not more than one from each state or territory and District of Columbia, to said conference: *Provided*, That an annual conference of the health authorities of all the states and territories and the District of Columbia shall be called, each of said states, territories and the District of Columbia, to be entitled to one delegate; *And provided further*, That it shall be the duty of the said Surgeon General to call a conference on the application of not less than five state or territorial boards of health, quarantine authorities, or state health officers, each of said states and territories joining in such request to be represented by one delegate."

This act authorized the surgeon general to prepare and distribute suitable and necessary forms for the collection and compilation of mortality, morbidity and vital statistics. It also authorized the President to prescribe rules for the conduct of the service, and regulations respecting its internal administration, discipline, and uniform officers and employes.

The conferences called for by this act are very valuable in preventing the spread of epidemic diseases by insuring co-operation of state authorities with the Public Health and Marine-Hospital Service. Matters of sanitary interest, ventilation, housing, disposal of garbage, etc., and matters relating to prevention of epidemic diseases are considered by special committees appointed by the surgeon general for that purpose.

The state health authorities are thus brought into close relationship with the Public Health and Marine-Hospital Service. The municipal health officers, through their dealings with the state boards of health, form a part of the system. The result is an interchange of views and mutual understanding between all health authorities, and the closer relations thus established will be of great benefit in the public-health work of the future.

An act to regulate the sale of viruses, serums, toxins, and analogous products, and interstate traffic in such products, approved July 1, 1902, imposed additional public-health duties on the service. The regulations formulated and promulgated by authority of this act provide for the inspection of all establishments engaged in the manufacture of serums, vaccines, etc., by officers of the Public Health and Marine-Hospital Service. The inspectors are required to visit, unannounced, the various establishments, and make a report on the methods employed and conditions existing in these concerns. Licenses are granted or refused, according to the recommendations of the inspectors.

The administration of Surgeon-General Wyman, aside from the great expansion of the public-health work of the service, has been characterized by marked improvement in methods of bureau administration and station inspection. This result has been effected by revised regulations, by reorganization of the bureau, and by more systematic inspections and reports of all classes of stations. These inspections extend to the fifty vessels employed in quarantine work—steamers, barges and launches.

*(To be continued.)*

## TRAVEL NOTES.

### V.

### ITALY AND THE GREAT ANTIMALARIAL CAMPAIGN.

LEWELLYS F. BARKER, M.D.
CHICAGO.

BERLIN, June 25, 1904.

In Italy and Sicily as in Spain, the medical traveler is prone to pay more attention to, and profit more from, the history and art of the land than its medicine. And this with right; the key to the history of Europe is to be sought in Rome, and who would know Rome must study Sicily. And yet the physician

traveling in Italy, who gave himself over entirely to the satisfaction of his historical and esthetic inclinations, would miss much, for Italy has recently been making great strides forward commercially, socially and scientifically. Especially is this true of northern Italy, which presents a marked contrast to the southern regions where poverty depresses, begging still annoys and dishonesty yet exasperates the American traveler. That the country is everywhere and in almost all particulars making a swing upward is obvious. The national credit is much improved, as the traveler finds, almost to his sorrow, when he compares the number of lire he now receives in exchange for a pound with the larger amount dealt out to him a few years ago.

The aquarium at Naples is visited by everyone who goes to the city, and the traveling physician, above all, should not miss seeing it. This mother of marine laboratories, superbly situated in the middle of the Villa Nazionale, is still presided over by its generous founder, Dr. Dohrn, and the work on the morphology and physiology of the animals of the Mediterranean is being more actively prosecuted than ever. Tables are supported by Prussia, Saxony, Bavaria, Würtemberg, Baden, Hessen, Hamburg, Italy, Austria-Hungary, Russia, Holland, Belgium, Switzerland, the Universities of Oxford and Cambridge, the British Association for the Advancement of Science, the Smithsonian Institution and the Carnegie Institution in Washington. Many American biologists have profited by the magnificent facilities afforded there, and the Zoological Station at Naples has undoubtedly had a great influence on the development of our excellent seaside laboratories in America. The well-known conservator of the institution, Lobianco, makes exquisite preparations which are sent to zoologic museums in all parts of the world. The station has its own steam yacht, a steam launch, and many sailing boats and rowboats for the collection of material. Many of the fishermen have long been associated with scientific collectors. As we went through the laboratory Dr. Dohrn pointed out to us one elderly Neapolitan who formerly collected for Johannes Müller.

The example set by Dr. Dohrn as an organizer and leader of a laboratory must interest everyone engaged in executive work. It is a part of his policy to permit the greatest possible freedom of investigation and publication to those who study there. He is ever ready to give advice and to assist where he can, and in some instances perhaps to lead; but he never attempts to drive, nor does he make an effort to direct the work too much along the lines of his own interests in research. Two men may publish from the laboratory results quite contradictory to one another if they wish to do so; the director exercises no censorship which would prevent this, for time, he thinks, will best decide the merits in any given case. And it might be better, in the long run, if this policy were always followed by the heads of research institutions. A new physiologic department of the Zoologic station is being built; it is hinted that great attention is to be paid in the near future to physiologic-chemical researches in this department.

At the head of the Royal University of Naples this year is the distinguished psychiatrist, Leonardo Bianchi, well known to American neurologists on account of his views regarding the functions of the frontal lobes. The university is visited by more than 5,000 students yearly, has all four faculties, of which the medical faculty is by far the largest. Of the medical teachers besides Professor Bianchi may be mentioned Pianese, Rho, Pasquale and Biondi as those whose names are best known to us in America.

I must confess to having been much surprised at the number and size of the universities in Sicily. The Royal University in Palermo has 1,400 students, the University of Catania 1,000, and the University of Messina 645. Among the professors and instructors are a number of men well known to readers of anatomic and pathologic literature, e. g., Sanfelice (hygiene) and Fusari (histology) in Messina, Petrone (pathologic anatomy), Ughetti (general pathology), d'Abundo (psychiatry) and Staderini (anatomy) in Catania, and Marcacci (physiology), Trambusti (general pathology), Aequisto (histology) and Mirto (psychiatry) in Palermo.

One of the interesting sights to the medical man in Palermo is the remarkable osteologic collection presented by the catacombs of the Convento de' Cappuccini. In the subterranean passages beneath the convent the mummified bodies of the wealthier inhabitants of Palermo were stored for decades until a few years ago, when the government put a stop to this method of disposal of the dead. A curious custom was, in the later years, associated with the practice; the photograph of the living individual was placed in the catacombs beside the remains. This juxtaposition tempts to comparison; indeed, I can see no other reason for placing the photographs there. Sometimes the photograph impressed us most; sometimes, a gentleman with us thought he rather preferred the appearance of the skeleton! The only recent interment in the catacombs is that of the body of Signòr Crispi, and for this special permission had to be obtained. His widow, I was told, repairs at regular intervals to the sub-conventual regions to remourn her dead.

In Rome one's medical interest naturally centers in those Italian investigators who have done so much to clear up the clinical history, pathology and epidemiology of malaria, Marchiafava, Celli, Bignami and Bastianelli. These men are all members of the Medico-Chirurgical faculty of the Regia Università degli Studi, Marchiafava being professor of pathologic anatomy, Celli professor of hygiene, Bignami professor of general pathology, while Bastianelli is in clinical work. It must be admitted, I think, that the credit for the greatest Italian work on malaria belongs, not to a Roman, but to the Pavian, Camillo Golgi, but, in spite of this, the Romans have made and are still making contributions of high importance to the subject. The advances due to the Italians have been so thoroughly presented to American readers by American investigators of the malarial diseases that it would be superfluous to refer to them here.

One feature, perhaps, may be mentioned, namely, the foundation and activity of a special society for the study of malaria. This society dates from 1898 and is due to the initiative of Fortunato, Franchetti and Celli. The date of foundation was propitious; Ross had just made his important observations on the relation of mosquitoes to malaria in India; Ficalbi had studied the species of mosquitoes and their habits in Italy; Golgi in Pavia, and Marchiafava in Rome, had perfected the clinical study of the blood in the various forms of human malaria, and Grassi had observed the species of mosquitoes most prevalent in malarial districts and had regarded the *Anopheles* as the most suspicious variety. In the following autumn Bastianelli, Bignami and Grassi brought the direct proof of the propagation of human malaria by the mosquito and confirmed Ross' work regarding the *Anopheles*. The Society for the Study of Malaria undertook to draw important conclusions from this well-confirmed theory of malarial transmission and to apply these in the best possible hygienic manner. The work began in a modest way on a farm, now famous, known as *la Cervelletta;* Celli in 1899 established there the first station for the study of malaria in the Roman *Campagna*.. Since then more than a dozen stations have been established, under competent direction, in the various parts of Italy where malarial fevers prevail, and though the material resources of the society have been small, the energy, activity and personal sacrifice of the scientists who have been engaged in the investigations have been great and a rich treasure of epidemiological and prophylactic facts has been accumulated.*

On the epidemiologic side the society has made exhaustive studies of the geographical distribution of the various types of malarial fever, of the times of year when each type is most prevalent, of the relation of *recidives* to the outbreak of new epidemics, of the places and times, where the *Anopheles* are abundant and malaria is not epidemic, of the relations of rice-growing to malaria and of a number of other questions.

Still more important and extensive have been the researches on the prophylaxis of malaria. These included attempts to destroy mosquitoes and efforts at seroprophylaxis, but the most practical results in Italy have been obtained first by prophy-

*A report on the work from 1898 to 1903 was made by Celli at the Hygienic Congress in Brussels and published in the Arch. Ital. de Biol., vol. xxxiv, 1903, p. 3.

lactic dosing with quinin and second by mechanical protection against mosquito bites. Of nearly 1,000 people treated daily in 1902 with quinin only 4.5 per cent. were attacked, while from 14 to 85 per cent. of the people untreated in the same districts developed malaria. More than 2,000 people were given a prophylactic dose of 5 grams once every week or ten days; of these some 10 per cent. developed malaria, while 48 to 80 per cent. of those untreated developed the disease. The quotidian prophylactic dose is more protective, therefore, than the weekly single dose. No special harm seemed to follow the daily dosage. Further, the prophylactic use of quinin, even when unsuccessful in preventing an attack of malaria (though this is rare) does not hinder at all, as some have believed, but rather facilitates the therapeutic action of larger doses of the salt. The larger curative doses, far from being less efficacious for individuals who have received prophylactic doses, arrest more quickly the fevers which sometimes develop in spite of the prophylactic measures undertaken. The Italian experiences are strongly in favor, too, of the use of hydrochlorate and bichlorhydrate of quinin as a preventive rather than the more highly vaunted but less effective mixtures if iron, arsenic and quinin.

Much has been done by the society in the way of educating physicians how to use quinin properly. Physicians are urged in dealing with malaria not to be satisfied with giving the small number of doses which cut the attack short in those who have acute manifestations of the disease, but emphasis is laid on the following points:

1. During the months when malaria prevails, and when one can not count on the security of mechanical protection from mosquito bites or other prophylactic methods, the preventive treatment of healthy persons and of those in whom latent infection is possible should be resorted to. The daily or weekly distribution of quinin is not difficult in the form of sugar-coated tablets; the cost of the prophylactic treatment is not great (quinin is sold by the Italian government), two or three francs per head for the whole season of four months. The quantity of quinin necessary for each person in the course of the whole prophylaxis is less than that which is often necessary to use to completely cure a fever once contracted.

2. In those rare instances, where in spite of prophylaxis, malarial fever develops, it is necessary to administer at once large therapeutic doses to cut short the attack and to continue this stronger treatment *for from two to four weeks* before resuming again the smaller prophylactic doses.

3. For individuals in whom recurrent attacks are obstinately repeated, in spite of preventive treatment, an intense therapeutic treatment (gr. 0.50 to 1) should be begun and followed from four to six weeks; if necessary in such cases a reconstructive treatment with iron and arsenic is recommended in association with the quinin therapy.

Nothing is said in the epitome of the report of the society with regard to the simultaneous prevalence of malaria and typhoid fever. In view of our experiences in America, the question might well be asked, "Are not some of the *obstinate* malarial fevers described by the Italians really typhoid?" Typhoid fever is a disease much more poorly understood in Europe than in America. It is conceivable that a systematic study of "resistant" malarias in Italy, with the aid of the Gruber-Widal reaction, might be of value.

Mechanical protection against mosquito bites has yielded marvelous results in the prevention of malarial infection wherever it has been tried. In 1901, on the initiative and with the aid or counsel of the Italian society, 5,165 persons were mechanically protected against malarial fever. In badly malarial localities of 4,363 individuals carefully protected 1.9 per cent. only were attacked with primary malarial fever, while of 802 less well protected an average of 10.9 per cent. became sick. In 1902 of 5,851 mechanically protected there were only 2.8 per cent. of new infections, and only 10.1 per cent. of recidives. In this way a large number of poor families, which for years had suffered from malarial fever were, as Celli puts it, reborn to a new life, thanks to mechanical prophylaxis either alone or, where necessary, associated with the treatment of recidives. Unfortunately this mechanical prophylaxis is relatively expensive and is, therefore, applicable only to a limited class such as railroad employes and the like; it is beyond the means of the Italian peasant, for whom the quinin prophylaxis is alone available.

Italy, thanks largely to the efforts of members of the society, is the first country that has established special anti-malarial legislation. The Italian parliament has passed two laws: According to the first, it is possible to buy pure quinin cheap in every part of Italy, the sale being controlled by the government; according to the second, quinin must be furnished *gratuitously* and *abundantly* by physicians to workmen and to peasants at the expense of their employers. In case a workman contracts malaria while in service through culpable withholding of quinin a suit for damages is well grounded.

The state is setting a good example by giving its own employes on railroads and in custom-houses properly protected dwellings. The revenues from the sale of quinin (it is estimated that it will amount to 30,000 kilograms yearly), though the alkaloid is furnished at a very low price will, it is believed, be considerable; they are to be devoted solely to the service of the national struggle against the secular enemy, malaria. When it is realized that 4,000,000 hectares of Italian soil are uncultivated solely on account of the dangers of malaria, and when it is recalled that 2,000,000 Italians are annually attacked by the disease, and that from 12,000 to 15,000 die each year therefrom, the social and economic importance of the anti-malarial campaign becomes obvious. It is in many ways as Fortunato has emphasized and as Celli repeats in his report, the essential problem for Italy and plays a capital rôle in the urgent and menacing meridional question.

At the ancient hospital of Santo Spirito early one morning I found both Bignami and Bastinelli making morning rounds. The old hospital is most interesting historically, but scarcely suitable for modern work. Founded as long ago as 1198 by Innocent III, it has been added to and remodeled from time to time. It contains an enormous number of beds for medical and surgical patients, and has connected with it a lunatic asylum and a foundling hospital. The physicians in charge lament the antiquity of the arrangements, but are buoyant in the hope that a new hospital, with all modern improvements, is soon to be provided.

Though the Roman hospitals are old, many of the scientific institutes are modern. Thus Bignami has just gotten settled in a new laboratory, which though not large, is well arranged and looks active. Now that the stress of the malarial work is over, Bignami is turning his attention more particularly to the pathology of the central nervous system, and I spent an interesting morning examining some of his newer preparations. Among other specimens he showed me sections of the horn of Ammon from hydrophobia material in which the bodies described and believed by Negri to be the parasite of rabies were exquisitely demonstrated. The bodies are relatively large, situated in the protoplasm of the nerve cell body, and are sharply differentiable by staining methods; it is curious that they went so long overlooked. They occur in the nerve cells in different parts of the central system, e. g., in the anterior horn cells of the spinal cord, in the large cells of the formatio reticularis and in the Purkinje cells of the cerebellum, but they are most abundant in the cells of Ammon's horn. Certainly they look like parasites; they are quite different in appearance from the ordinary cell inclusions and cell degenerations with which pathologic histologists are familiar. The fact that the hydrophobia virus under certain circumstances passes through the Berkefeld filter does not necessarily exclude the Negri bodies from being the causal parasites of hydrophobia, for while the bodies described by Negri are much too large to pass through the filter, it is easily conceivable, as Celli and de Blasi suggest, that in the protozoan cycle forms much smaller than the larger bodies of Negri may occur.

*(To be continued.)*

**Apparent Death for Six Hours After Lightning Stroke.**—The *Lancet* of April 9 quotes Sestier to the effect that 7 cases are known in which persons struck by lightning were revived after six hours of apparent death.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

103 DEARBORN AVENUE .... CHICAGO, ILL.

Cable Address ... "Medic, Chicago"

Subscription price ..... Five dollars per annum in advance

SATURDAY, AUGUST 20, 1904.

## URIC-ACID THEORIES.

An interesting example of the persistence of a theory that for all practical purposes has seen its rise and fall, is furnished by the case of uric acid. No matter how abundantly the results of reliable research are published, nor how carefully the leading clinicians controvert the mistaken ideas of a previous generation, a large proportion of the unprogressive will cling to the most worn-out theory or system for no better reason than that the idea once secured a firm place in their mental armamentarium, and that it would require an effort to dislodge it. A student is told that uric acid accumulates in the blood and leads to all sorts of diseases, and that uric acid in the urine means an excess of uric acid in the blood; if he is of a certain type, for the rest of his life a "brick dust" deposit in a urinal calls for sodium salicylate or some other favorite remedy, and never for a moment will he imagine any room for question of the absolutism of the uric-acid doctrine. Furthermore, as Billings has said, the theory which was accepted at one period by the medical profession becomes at a later period the theory and property of the laity. And thus many manufacturers of patent or proprietary remedies wax rich selling a "solvent" which does not dissolve a substance that does not accumulate in the "system" and does not cause a host of ills.

The widespread acceptance in this country of the supreme importance of uric acid as a cause of most of the diseases that flesh is heir to, is probably due more to the writings of Haig than to any other one cause. Using methods that are known to be unreliable, he secured data that can not be corroborated, and with these as a basis followed out a marvelous train of logic to the ultimate conclusion that practically all disease is due to uric acid, and that a vegetable diet is a guarantee against the sufferings of mortal man. No advance in physiologic chemistry and pathology, no amount of refutation of his claims, seems to have interested or swerved him in the least, for in his newly published "Epitome" on uric acid,[1] he ignores everything but his own cherished beliefs, and calmly follows them as they lead to the conclusion that appendicitis, consumption, and uterine fibroids are all expressions of the pernicious effects of uric acid, and in turn to meat eating. We have been reading this book, and psychologically, it is one of the most interesting things of the kind recently published.

1. Uric Acid. An epitome of the subject, by Alexander Haig.

The fundamental ideas, as Haig gives them, are that uric acid is deposited in the tissues of the body when the solvent power of the blood is reduced, and taken up in the circulation when the solvent power of the blood is increased, whether by diet or drugs. The result in the first case is local inflammation of the fibrous tissues, leading to such conditions as appendicitis, uterine fibroids, catarrh, pneumonia, phthisis, cirrhosis, and even to liver abscess. Bad as this is, the results that follow the dissolving of uric acid and its circulation in the blood are ever so much worse, for Haig says uric acid forms a colloid which blocks up all the capillaries, and naturally as a result the various organs do not get enough nourishment, and the heart has a terrible time trying to push the slimy uric acid through the capillaries. Nothing could be simpler. And all this being true (?), it is easy to see how we have produced headache, epilepsy, insanity, fatigue, paralysis, dilated stomach, diabetes, Bright's disease, boils, aneurism, leukemia, pernicious anemia, exophthalmic goiter and piles. This is no joke—these are only a few from the list that fills over three solid pages of the epitome.

But we wonder how the oculists will look on the statement that migraine is due to the presence of uric acid in the blood. Dr. Haig also has cured hundreds of cases, but without a single lens. And what is the poor lay brother to do about it? Shall he live on excelsior breakfast food and Battle Creek products, or ought he to visit a refractionist and get a new pair of glasses? Possibly the homeopathist will offer the helpful suggestion that right-sided migraine comes from eyestrain and left-sided from uric acid, or *vice versa*. At any rate, the speed and endurance of the hobby horse is demonstrated.

We pay this much attention to Haig's book largely because at one time his name assumed prominence as authority on uric acid as a cause of disease, owing to the fact that at that time our methods of research had not developed sufficiently to afford any accurate knowledge of the facts in the case. Many physicians have Haig's books on their shelves, and have been much influenced by them in their practice. It will be readily granted that the advice as to diet, hygiene and therapy recommended on the basis of this theory, has often been productive of excellent results, and probably seldom if ever harmful, but real progress can not be made on a basis of error, and it is necessary to appreciate the fallacy of much of the talk concerning uric acid.

We have not space to go into the reasons involved in the objections to this theory, but our readers can secure first-hand information from available sources in the English language.[2] Billings has tersely summed up the results of our studies in the following words: "Some of the fallacies of uric acid are, therefore: 1. That uric acid is toxic; 2. that it is a causative factor of any disease

2. J. H. Salisbury: The Chicago Clinic, April and May, 1900. A. E. Taylor: Amer. Jour. Med. Sci., August, 1899. Woods-Hutchinson: Lancet, Jan. 31, 1903. A. C. Croftan: Philadelphia Med. Jour., 1902, April 5, et seq. Walter Baumgarten: THE JOURNAL A. M. A., Feb. 13, 1904, p. 431. Frank Billings: Chicago Medical Recorder, 1901.

except gout; 3, that 'uricacidemia,' meaning acid blood, does exist; 4, that the chemical reaction of the blood may be altered by the medicinal quantities of the alkalies or by diet; 5, that uratic deposits may be dissolved out by the administration of alkalies; 6, that lithia is a uric-acid solvent of unusual potency; 7, that uric acid is an abnormal constituent of the urine; 8, that an excess of uric acid in the urine at any one time, or a deficiency at another time, indicates an abnormal condition in reference to uric acid; 9, that rheumatism is due to uric acid."

## SPECIALISM AND SCIENTIFIC SUCCESS.

A very general impression prevails at the present time that success in scientific investigation can only be hoped for from those who are highly specialized students of their branch. All departments of science are popularly considered, at least, to have developed to such an extreme of refinement that only the specialist can hope to make the distinct advances which add to our present knowledge. Every now and then there comes a distinct contradiction of this idea that is worth while noting. After all, it must not be forgotten that after the cause of infectious disease had been for so long a subject of study on the part of physicians, and when presumably only from a physician could the solution of the mystery of disease etiology be looked for, Pasteur, a chemist and biologist, stepped in and the riddle was solved.

At the present moment some of the most interesting work that is being done in progressive medicine is that of Professor Arrhenius, the distinguished scientist to whom we owe the foundation of the science of physical chemistry. The Swedish professor is now engaged in investigating the physical chemistry of serums with the idea of making our knowledge of these complex substances more definite so as to enable us to appreciate the real reasons for their action and the sources of their energy. It seems not unlikely that the ionic theory of the constitution of matter and the electro-chemical factors which have been found so important in solutions may serve to broaden the field of application of serums and even secure the discovery of further curative agents of this kind.

Arrhenius is perhaps the most interesting type of the successful non-specialist scientist now alive. He received the Nobel prize for his successful investigations in physical chemistry before he was 45, yet his scientific work ranges, as a writer in the *Popular Science Monthly* said not long since, "from salt solutions to comets and their perihelion periods to the typhoid bacillus." His record lends little support to the belief that a scientific man must be a narrow specialist if he is to attain eminence. This belief rests on a misapprehension. It is true that scientific men are accumulating facts at a tremendous rate, and that this apparently makes it more and more difficult for any one man to be master of anything more than a small branch of a single science. Along with this accumulation of isolated facts, however, there goes the development of simplifying generalizations or laws which enable men to grasp and remember an enormous number of facts. The smaller mind is apt to be so weighed down by mere accumulation of facts as not to be able to see the great laws which they demonstrate. It is a case of not being able to see the trees because of the leaves.

There would even seem to be in such cases something more than a hint that the modern methods of education which insist to such a degree on cumulative information may prove in many ways to be a mistake. Scholars with possibilities of original work in them become so loaded down with the supposed results of others' observations and with the uncertainties of elaborate technic that they are never brought really face to face with the important problems to be solved. Direct observation is the only method of broadening the field of knowledge that has ever given satisfactory results. Elaborate theories have been popular, but they usually delay the progress of science. For observation, what is needed is the faculty which John Ruskin once declared to be the rarest quality of the human mind, that, namely, of seeing things as they are and telling them simply as they appear. There is always room for the simple observer in medical science, and never more so than at the present moment.

## POPULAR MUSEUMS OF HYGIENE AND DISEASE.

In all large cities we find various kinds of museums and collections for the instruction and amusement of the people, but there is one form of museum or permanent exhibition still almost without representation on the long list of these useful institutions, namely, popular museums of hygiene and knowledge of disease. The usefulness of museums of this kind in promotion of knowledge in regard to subjects of such importance as health and disease is so self-evident that no special argumentation is required. Medical men especially appreciate the unsurpassed value of the eye for the conveyance in teaching of strong, living and hence lasting impression. This is the era of publicity in medicine; secrecy is only the stamp of charlatanism; successful prevention of many diseases, e. g., tuberculosis, must ever depend in large measure on the knowledge among the masses in regard to such diseases.

There are few diseases that lend themselves so well for illustration by museum methods as tuberculosis, the one disease above all others to be stamped down. The temporary exhibit in Baltimore last winter and the permanent tuberculosis museum in Berlin show well enough how much may be accomplished in a short time and with relatively small expense. The extent, distribution and death rate of the disease may be shown by maps, tables and curves. The bacillus may be demonstrated in drawings, cultures and microscopic preparations, and the effects of tuberculosis on the body of man and of animals by means of anatomic preparations by

the side of which specimens of normal organs would serve for purposes of comparison. Preventive means, such as apparatus for ventilation and disinfection, sputum cups, and the like, would form interesting exhibits when arranged along developmental lines. The construction of tents, of sanatoria, of healthy homes, healthy factories, etc., are other fields for illustration. Portraits and busts of the founders of our knowledge of tuberculosis and a collection of the classical literature of tuberculosis would most fittingly be found in this museum, all arranged in the attractive manner that curators so well understand. Fancy the interest, the reverence with which the father and mother would study such a collection when it became known that some one of their children were showing signs of early tuberculosis! We unhesitatingly recommend to our associations against tuberculosis this plan, which no longer is a new idea, of permanent, popular museums of tuberculosis. No doubt much good would come from co-operation in various ways.

Practically all communicable diseases are susceptible of similar treatment. In their last report to the House of Delegates, the Committee on Venereal Diseases state that the next step in their prevention is publicity and education. Wisely managed, much valuable information in regard to these infections could be conveyed by museum methods.

There is consequently a large field for popular museums of the kind indicated, which becomes still more extensive if such museums attempt to cover also general hygiene, a subject that in this country as yet is almost wholly without museum representation even for more purely technical and educational purposes. Taking it all in all, we must conclude that the time has come when endowments and appropriations are needed for museums of hygiene and disease, just as well as for archeology, anthropology, zoology, art, and the like.

## THE CAUSES OF THE CACHEXIA ACCOMPANYING MALIGNANT TUMORS.

The underlying causes of the anemia and malnutrition which accompany the development of malignant new growths, and which we speak of as cachexia, have been, to some extent, obscure. It is easy to understand why a patient with a large extensively ulcerated growth, infected as this is bound to be, should suffer from anemia and malnutrition, the absorption of septic material sufficing to explain this. It is a well-recognized fact that small non-ulcerated neoplasms can also give rise to well-marked cachexia, even when there are no signs of sepsis The cachexia in these cases has been explained as due to the absorption of toxic substances secreted by the tumor cells, but so far no one has attempted to explain the nature of the toxins. Recently, Kullmann[1] has made some interesting experiments which seem to clear the matter up. He finds that carcinoma cells contain a substance which has a strong solvent effect on blood corpuscles. When added to blood outside of the body, or when introduced into the bodies of animals, this substance produces a prompt and active dissolution of the red blood corpuscles. The substance could be distinguished from the hemolytic substance normally found in all tissues, and was much more powerful than this. Kullmann cites other authors to show that a similar substance has lately been isolated from sarcoma cells. The theory seems very plausible.

1. Zeitschrift für klin. Med., vol. lIII. 1904.

## THE ACTION OF SALICYLATES ON THE URINARY TRACT.

The salicylates have been so widely employed and have proved of such distinct utility in the treatment of a large number of disorders, that the fact should not be ignored that they may give rise to irritation of the urinary tract, particularly the kidneys. Some observers have even reported the occurrence of nephritis and desquamative catarrh of the urinary passages from this cause. In order to convince themselves of the accuracy or otherwise of statements of this character, Dr. Carl Klieneberger and Dr. Richard Oxenius[1] made a careful study of the urine from a large number of practically normal persons and from individuals suffering from rheumatic disorders, particularly polyarthritis, to whom later salicylates were administered. As a result of their observations they found that the administration of even small doses of salicylates gave rise to the urinary, but not to other clinical phenomena of nephritis and also of desquamative catarrh of the entire urinary tract, but that these disappeared with the continued administration of the medicament. Habituation to the drug did not appear to develop, as similar symptoms reappeared when the administration was resumed after an interval of a few days' omission. It appeared that a toxic or febrile nephritis is present in the majority of cases of febrile rheumatic disease, and that this subsides under the use of salicylates. On the other hand, the salicylates themselves give rise to a characteristic form of nephritis, from which recovery takes place as a result of their continued administration.

## THE ETIOLOGY OF SCURVY.

Although the symptomatology of scurvy differs somewhat as the disease occurs in adults and in children, prevention and cure can be effected in both apparently by the observance of certain dietetic regulations. While this fact has long been appreciated, the factors on which the disorder actually depends have never been clearly made out. The common belief is that the deterioration of the tissues that is the most conspicuous feature of the affection is due to the absence from the food of certain chemical principles contained especially in fresh vegetables, but the identity of these has not been established. It has also been suggested that the disease is of infectious origin, but here again the hypothetical causative micro-organism has not yet been isolated. In support of this latter view, Mr. Myer Coplans[2] presents certain interesting evidence, obtained in the Transvaal toward the close of the Boer war and subsequently. In general, this is to the effect that the disease occurred

1. Deutsches Archiv f. klin. Medicin, vol. lxxx. Nos. 3-4, p. 225
2. Lancet, June 18, 1904, p. 1714.

not in those deprived of any particular article of food, but among those provided with the same diet whose surroundings, however, were of a character conducive to infection. Further, the best therapeutic results were obtained in those cases in which attention was directed to disinfection of the mouth in addition to constitutional treatment. The disease began as an inflammation of the mouth, the general symptoms following at varying intervals. Improvement or the reverse took place in direct relation to the improvement or aggravation in the condition of the gums. The treatment consisted of rest in the open air and isolation from previous surroundings, together with rigorous and frequent antisepsis of the mouth.

## HEALED MILIARY TUBERCULOSIS OF THE LUNGS.

The possibility of healing tuberculous lesions is well established. Instances of healed or healing local pulmonary, glandular, osseous and synovial tuberculosis are very common. The frequency with which healed tuberculous areas are encountered at postmortem examination is generally known. But even more extensive tuberculous outbreaks, such as tuberculous peritonitis, pleuritis, and even leptomeningitis, may heal completely. Instances of healed miliary tuberculosis, however, must be very rare. Spengler[1] reports recently a case of healed miliary tuberculosis of the lungs in a man who first came under observation in 1889, when both apices showed evidences of involvement. In the following year there were signs of extensive invasion of the rest of the lungs. He was treated with tuberculin on several occasions until in 1894, when bacilli disappeared from the sputum, the temperature remained normal, and the physical signs indicated retrogression of the pulmonary lesions. A laryngeal tuberculous ulcer, which had appeared in 1893, also healed. Death occurred in December, 1894, after an illness of four weeks, marked by cerebral symptoms. Unfortunately, the autopsy was limited to the lungs, which showed apical adhesions, and numerous prominent, hard, small nodules of pure scar tissue scattered throughout all parts of their substance. Microscopically, these nodules showed no bacilli, no giant cells, no epithelioid cells; here and there were a few small necrotic foci, some fibroblasts and young vessels, but otherwise only scar tissue. The case is cited by Spengler as an instance of the beneficial action of tuberculin, which should be given repeatedly at intervals of not longer than six months. We believe that the case may be accepted as one of healed miliary tuberculosis of the lungs, but that the actual influence of tuberculin in a single case like this can not be determined, especially in view of the fact that the cerebral lesion in the case remains unknown, for the latter might have been of tuberculous nature.

1. Zeitschr. f. Hyg. u. Infektionskr., 1904, xlvii, 133.

## THE VALUE OF THE LEUCOCYTE COUNT IN APPENDICITIS.

The significance of the changes in the white corpuscles which occur in appendicitis has of recent years been the source of a great deal of discussion, and a perusal of the proceedings of the various medical societies shows that on the one hand there are those who consider the leucocyte count of little or no value, and on the other those who perhaps pin too much faith on it. The differences of opinion are so great that it seems hard to explain them. Several factors are doubtless at work to cause the disagreement. Among the more important of these must be mentioned the basing of opinion on an insufficient number of cases, too infrequent blood examinations, and the tendency to regard the blood examination as a specific diagnostic point rather than to consider it as a link in the diagnostic chain. The ground has recently been worked over by a number of observers, among whom must be mentioned Cazin and Gros,[1] Rehn[2] and French.[3] The attitude which has generally been taken with regard to the significance of a leucocytosis in appendicitis is that the degree of leucocytosis is an indication of the presence or absence of pus or of peritoneal involvement. Attempts have been made by various authors to fix a boundary line so that we could say that if the leucocytes were below this arbitrary limit pus was not present; if above it, pus was present. The studies above mentioned show that no such arbitrary division can be made. It is true that cases with a very high leucocytosis, over thirty-five thousand white cells per cubic millimeter, for example, nearly always showed pus, but even this was not invariably the case. Cazin and Gros in their work lay a good deal of stress on the importance of making frequent counts in a given case and observing whether the number of leucocytes tends to increase or decrease. According to these observers and French corroborates them in the main, the occurrence of a gradually increasing leucocyte count is of much greater significance as regards pus formation than the mere number of the leucocytes. In his series of cases French noted, on the other hand, that where the cases were tending to recovery the number of leucocytes gradually fell. As regards the leucocytes in cases with general peritonitis, the remarks referring to the question of pus formation are applicable. French found that 50 per cent. of the cases with general peritonitis showed no leucocytosis. Rehn also reports that two out of six cases with diffuse peritonitis showed a lack of leucocytosis. Here, again, experience shows the insufficience of single or scattered counts and the value of daily observations, either a very sudden rise or less frequently a very sudden drop indicating peritoneal involvement. The view which French takes of the matter, after studying the literature and his own cases, is that a good deal of work remains to be done to place the significance of the leucocyte count in appendicitis on a firm basis. He suggests that the differential count of the leucocytes in these cases should be worked up much more fully, as the few instances in which this has been done indicate that it may be of value. The general impression gained from the papers cited is that the changes in the leucocytes may certainly be of both diagnostic and prognostic import, but that these changes must be considered in connection with the clinical aspects of the case, and that the best results will be obtained by daily and systematic examinations.

1. Semaine Médicale, May 6, 1903.
2. Münchener med. Woch., No. 50, 1903.
3. The Practitioner, June, 1904.

# Medical News.

## CALIFORNIA.

**Hospitals.**—The Fresno County Hospital has been recently completed at a cost of $100,000, and has accommodation for 150 patients.——Mr. and Mrs. James H. Hough have agreed to erect a receiving hospital for Stockton at a cost of $10,000, provided the city binds itself to maintain the institution.

**Personal.**—Dr. Ray L. Wilbur, assistant professor of physiology in Stanford University, has resigned and will take up private practice.——Dr. Edward P. Rockhill, U. S. Army, Presidio of San Francisco, who was operated on for appendicitis, has resumed his duties at the General Hospital.——Dr. C. Van Zwalenburg, Riverside, has resigned as physician of Riverside County.

**Accidents.**—Dr. Winifred S. Foster, Oakland, was severely injured in a collision between her buggy and a street-car near Lorin.——Dr. James D. Hill, San Francisco, was thrown to the ground from his automobile, July 27, and narrowly escaped serious injury.——Dr. William J. Hosford, Alameda, sustained severe injuries to his leg in a bicycle accident, a few days ago. ——Dr. James M. Shannon, Oakland, was thrown from his buggy in a collision, his nose broken, and his knees badly cut. ——Dr. Guido E. Caglieri, San Francisco, was recently thrown from his horse, fracturing his femur.

**To and From Europe.**—Dr. William E. Hibbard, Pasadena, sailed for Germany July 23.——Dr. and Mrs. W. J. Chambers, Corona, are spending two months in Europe.——Dr. Vida Redington, Oakland, is making a leisurely tour of the Eastern States and Europe.——Dr. and Mrs. Hirschfelder, San Francisco, have returned from Europe.——Dr. Harry M. Sherman, San Francisco, has returned from abroad.——Dr. and Mrs. Arthur H. Mays, Sausalito, have gone to Europe.——Dr. William A. Martin, San Francisco, has returned after a stay of a year and a half in Europe.——Dr. Ray L. Wilbur, Stanford University, has returned from Europe.

**Appointments.**—Dr. Charles M. Tinsman, Bieber, has been appointed assistant physician of Lassen County, vice Dr. Arthur F. Bradshaw, resigned.——Dr. Henry J. B. Wright has been appointed to fill the unexpired term of Dr. William D. McDougall on the San Jose Board of Health.——Dr. Lewis A. Perce, Long Beach, has been elected president of the State Board of Medical Examiners.——Dr. Stephen H. Rantz has been elected president of the newly-organized Placerville Board of Health.——Dr. Fred C. Gerlach has been made secretary of the San Jose Board of Health, and health officer.——Dr. Dennis D. Crowley, Oakland, has been appointed district surgeon of the Santa Fe system.

## DISTRICT OF COLUMBIA.

**School Inspection.**—The commissioners have approved the recommendations of Dr. William C. Woodward, health officer, and the Board of Education, that amendments be made to the regulations governing the medical inspection of public schools in the District, consisting of changes in the wording of the various sections, the addition of more specific rules relating to diseases and various other details calculated to make more effective the operation of the regulations.

## ILLINOIS.

**Personal.**—Dr. William Jayne, Springfield, has been reappointed a member of the State Board of Public Charities.

**Smallpox in Zion.**—It is said that there are 16 cases of smallpox in Zion City, and neighboring towns are taking precautions to prevent the spread of the disease.

**Expensive Spitting in Seneca.**—A new ordinance was passed by the Seneca City Council imposing a fine of not less than three nor more than twenty-five dollars for any person caught spitting on the sidewalks.

**Physician Insane.**—On the application of his wife, Dr. Howard R. Weber, Highland, was taken before a court at Edwardsville, July 25, declared insane, and committed to the Illinois Southern Hospital for the Insane, Anna.

**McAllister Hospital Completed.**—The new McAllister Hospital, erected at Waukegan, by the generosity of the late Mrs. Jane McAllister, at a cost of $21,000, was opened for public inspection August 5. The building contains 45 rooms.

**Hospital Addition Open.**—The new $140,000 ward addition to the Illinois Western Hospital for the Insane, Watertown, was informally dedicated August 2, and 300 new patients from Lee, Ogle and Stephenson Counties were installed. The new structure increases the capacity of the institution to 1,200 patients.

**Illinois Not Responsible.**—In the final report of the investigations made regarding the complaint of St. Louis, that its water supply was contaminated from Illinois sources, the State Board of Health draws the following conclusions:

1. The water supply of St. Louis is taken almost entirely from the Missouri river.
2. The water of the Illinois river is so much purer than that of the Missouri that, if the city of St. Louis took large quantities from the Illinois river, the water supply would be better than it is, coming from the Missouri.
3. The increased flow of Lake Michigan water, in addition to the sewage coming through the drainage canal, has improved the quality of the water of the Des Plaines and Illinois rivers.
4. The contamination of the Illinois river through the farm and village and city drainage and sewage from commercial enterprises is probably greater than from the drainage canal under present conditions.

## Chicago.

**Fined for Selling Cocain.**—Dr. Adolph Brendecke was fined $100 by Justice Caverly for selling cocain to minors.

**The Week's Deaths.**—Acute intestinal diseases again heads the list of deaths, with 111; violence caused 62 deaths; consumption, 56; heart diseases, 41; Bright's disease, 29; cancer, 22, and pneumonia, 20. The total deaths were 496, equivalent to an annual death-rate of 13.41 per 1,000.

**Smallpox.**—During last week eight cases of smallpox were sent to the Isolation Hospital. Two of these were colored men and one was a woman 60 years old who claimed to have been vaccinated in childhood and had an imperfect scar as proof. She had, however, never been revaccinated and none of the others had ever been vaccinated at all.

**Low Mortality Among Children.**—The department of health makes the following comments on the lessened mortality among young children this season:

One of the most remarkable features of the present most remarkable season, as to the public health, is the unprecedentedly low mortality from the contagious diseases of childhood and, as a consequence, an unprecedentedly low general death rate for the city. Only one death each from diphtheria and measles, three from scarlet fever and four from whooping cough were reported during the week.

Since the first of the year there have been 212 deaths from diphtheria; during the corresponding period of 1903 there were 328 diphtheria deaths—decrease this year more than one-third (35.3 per cent.).

Deaths from scarlet fever show a decrease of 52.2 per cent.—241 last year, 115 this year.

In the whooping cough mortality, the decrease is 80 per cent.—241 deaths in 1903, 48 in 1904.

Against the 23 deaths from measles since Jan. 1, 1904, there were 258 in the corresponding period of last year—a decrease of 91 per cent.

The gross mortality of the four principal contagious diseases of childhood thus far in 1904 is not much more than one-third (37.3 per cent.) that of the corresponding period of 1903.

## INDIANA.

**Smallpox.**—Goshen has six cases of a severe type of smallpox, with one death. The disease was as usual diagnosed as chicken-pox, and no precautions were taken.

**On the Sick List.**—Dr. Henry C. Dixon, Tunnelton, is dangerously ill, following a cerebral hemorrhage.——Dr. Andrew J. Chittick, Burlington, has been seriously ill with septicemia from a scratch wound.

**Personal.**—Dr. Robert B. Short, Union Mills, had a rib broken in a collision between two trains near Chicago August 9. ——Dr. Edward A. Willis, formerly demonstrator of ophthalmic and aural surgery, rhinology and laryngology in the department of medicine of the University of Michigan, has located in Indianapolis.

**July Disease and Death.**—The July Bulletin of the State Board of Health says: The health of the State in July was not so good as in July, 1903. Diarrheal diseases led in prevalence, and typhoid fever, which in last year was sixth in prevalence, stood fourth this month. The typhoid fever epidemic in Indianapolis in June abated somewhat in July. Tuberculosis showed an increase. The total number of deaths was 2,772, an annual rate of 12.3 per 1,000. In the preceding month the rate was 10.1 per 1,000, and in July, 1903, 12.9 per 1,000. Pulmonary tuberculosis caused 346 deaths; exceeding the same month of last year by 31; typhoid fever, 68; diphtheria, 10; scarlet fever, 5; measles, 4; whooping-cough, 6; pneumonia, 85; diarrheal diseases, 296; cerebrospinal meningitis, 29; puerperal fever, 10; cancer, 116; violence, 189; smallpox, 5. The cities also show a higher death rate than the country in typhoid, diphtheria, pneumonia, diarrheal diseases, cerebrospinal meningitis, puerperal fever, cancer and violence.

## MARYLAND.

**The Medical and Chirurgical Faculty** of Maryland will hold its semi-annual fall meeting at Ocean City, September 9 and 10.

**Resignation.**—Dr. B. Curtiss Miller, for eight years resident physician in charge of the Western Maryland Hospital, Cumberland, has resigned.

**Urges Sanatoria.**—City Commissioner Bosley of Baltimore, in his annual report, urges that the state and city jointly establish sanatoria for the treatment of consumption, in the Blue Ridge Mountains.

**Kills Algae But Not Bacteria.**—Dr. Stokes, city bacteriologist of Baltimore, reports that the copper sulphate, used to purify the drinking water, while destroying algæ, has no effect on bacteria.

**Cornerstone Laid.**—The cornerstone of the addition to the Frederick City Hospital, to cost $10,000, and donated by Mrs. Margaret M. Hood of Frederick, was laid, July 8, with impressive ceremonies.

**Gone to Investigate Typhoid Epidemic.**—Dr. Marshall L. Price of the State Board of Health, has gone to Mount Savage to investigate the typhoid fever epidemic there. Up to August 10 there had been 93 cases and two deaths. The outbreak is traced to a man who came to the town, July 4, with the disease. The deaths from the disease in Maryland average about 325 per annum.

## MICHIGAN.

**Appendectomies.**—Dr. Levi J. Lennox, Detroit, was operated on for appendicitis August 2.——Dr. Raymond A. Clifford, Ypsilanti, who was operated on for appendicitis in Detroit, July 17, is progressing favorably toward recovery.

**Sentenced for Abortion.**—Dr. Scott Fraser Hodge, Detroit, convicted of manslaughter in connection with the death of Anna Lehmann, was sentenced on August 2, to imprisonment for not less than six, nor more than nine years in the state reformatory at Ionia.

**Personal.**—Dr. Oscar C. Breitenbach has been appointed health officer of Escanaba.——Dr. Flemming Carrow has resigned the chair of ophthalmology and otology in the University of Michigan, Ann Arbor, and will locate in Detroit.——Dr. S. Edwin Cruse, Iron Mountain, has been commissioned major and surgeon and assigned to the Third Infantry, M. N. G.

**Comparative Morbidity.**—For July, compared with the average for July in the last ten years, smallpox, diphtheria and puerperal fever were more than usually prevalent, and cholera morbus, cholera infantum, measles, typhoid fever, intermittent fever, remittent fever, dysentery, scarlet fever, erysipelas, whooping cough and pneumonia were less than usually prevalent. During July the diseases which are usually most prevalent during the summer months in the ten preceding years were less prevalent. This lessened prevalence was probably due, in great part, to the lower than average temperature during the month.

**The Most Dangerous Communicable Diseases.**—Meningitis was reported present in Michigan during July, 1904, at 8 places; whooping cough at 14 places; pneumonia at 20 places; diphtheria at 57 places; scarlet fever at 70 places; typhoid fever at 73 places; measles at 73 places; smallpox at 116 places, and consumption at 288 places. Meningitis was reported at 1 place less; whooping cough at 6 places less; pneumonia at 54 places less; diphtheria at 4 places less; scarlet fever at 26 places less; typhoid fever at 2 places less; measles at 95 places less; smallpox at 62 places less, and consumption at 6 places more in July, 1904, than in June

## MINNESOTA.

**Personal.**—Dr. Andrew Henderson, Merriam Park, St. Paul, has gone to Scanlon, Minn., to take charge of the sanitarium there.——Dr. Frank H. H. Allen has been elected health officer of Staples.

**Smallpox on the Wane.**—The number of new smallpox cases in the state for the week ended August 1, was only 6, the smallest number since the outbreak of the epidemic in the winter of 1898.

**St. Paul's Health.**—During July 284 births and 134 deaths were reported, the latter being equivalent to an annual death-rate of 8.68 per 1,000. Only 22 cases of communicable disease were reported during the month.

**Graduates in Medicine.**—Hamline Medical School, at its twenty-first commencement exercises, conferred degrees on a class of 15.——The College of Medicine and Surgery of the University of Minnesota, Minneapolis, graduated a class of 82.

**State Society.**—The Minnesota State Medical Society, at its thirty-sixth annual meeting, held in St. Paul, elected the following officers: President, Dr. John W. Bell, Minneapolis; vice-presidents, George S. Wattam, Warren, Drs. John Williams, Lake Crystal, and James H. Haines, Stillwater; secretary, Dr. Thomas McDavitt, St. Paul, and treasurer, Dr. Richard J. Hill, Minneapolis.

**Tents for Isolation Hospitals.**—At a recent meeting of the Minnesota State Board of Health, it was decided to advise every township that does not have a special isolation hospital to buy at least one double tent for use as a portable hospital. By the use of such tents, the spread of contagious diseases throughout entire families, so common in the country districts, can be largely avoided. The double tent is much more easily disinfected than a house and by erecting it in the yard the family of the quarantined person need not be inconvenienced.

## NEBRASKA.

**Personal.**—Dr. Clinton E. Sapp, city physician of South Omaha, has resigned and has been succeeded by Dr. John Koutsky. Dr. William S. White, South Omaha, has been reappointed assistant physician of Douglas County.

**Many Graduate.**—John A. Creighton Medical College, Omaha, conferred diplomas on a class of 28.——At the second annual commencement of the University of Nebraska Medical College, Omaha, a class of 30 received diplomas.

**New Officers.**—At the thirty-sixth annual session of the Nebraska State Medical Society in Omaha, the following officers were elected: President, Dr. Robert C. McDonald, Fremont; vice-presidents, Drs. John M. Mayhew, Lincoln, and Charles L. Mullins, Broken Bow; secretary, Dr. A. D. Wilkinson, Lincoln; corresponding secretary, Dr. H. Winnett Orr, Lincoln, and treasurer, Dr. James L. Greene, Asylum.

**Electro-Medical Institute Loses.**—The "State Electro-Medical Institute" of Omaha, which sued a patient and was defeated on the ground that it was not authorized to practice medicine, has had proceedings instituted against it by the State Board of Health, alleging that the "Institute" was a corporation, and that it assumed to practice medicine, asking that it be enjoined and prohibited from practicing medicine or doing any business in the state. The suit was decided in favor of the board and the injunction issued. The "Institute" has appealed to the Supreme Court.

## NEW MEXICO.

**Hospital News.**—The Sisters of the Sorrowful Mother are about to erect a hospital in Roswell.——The Silver City Hospital Association has been merged into the Santa Fe-Pacific Hospital Association.

**State Medical Society.**—The twenty-third annual session of the New Mexico Medical Society, held at Albuquerque, closed with the election of the following officers: Dr. Edwin B. Shaw, Las Vegas, president; Dr. J. Frank McConnell, Las Cruces, Thomas B. Hart, Raton, and Percy G. Cornish, Albuquerque, vice-presidents; Dr. Guy H. Fitzgerald, Albuquerque, secretary, and Dr. Harry M. Smith, Las Vegas, treasurer.

**Sanatoria.**—A tent city sanatorium, to cost $30,000, will be erected three miles north of Albuquerque, and will be in charge of Dr. James E. Miller.——Dr. Robert E. McBride has purchased a tract of land near Las Cruces on which he will conduct a sanatorium.——The Las Vegas Hot Springs Sanatorium Company has been incorporated by Dr. William T. Brown, Lancaster, Wis., and others, with a capital stock of $400,000. The company proposes to reopen the Montezuma Hotel as a sanatorium for wealthy consumptives and also to operate in connection a tent city where persons of limited means will be treated at actual cost.

## NEW YORK.

**Penitentiary Quarantined.**—The Albany County Penitentiary has been quarantined because of smallpox.

**Diphtheria is Epidemic.**—Elmira is undergoing a mild epidemic of diphtheria. In July 41 cases were reported, with one death.

**Buffalo Personals.**—Dr. Charles G. Stockton is in Europe.——Dr. Charles von Bergen has taken an automobile trip through New England.

**Village in Quarantine.**—The entire village of Dresden has been placed in quarantine on account of an epidemic of small-

pox. The Board of Health of Geneva has recommended general vaccination.

**Reception Hospital Incorporated.**—The reception hospital, which is to receive and care for consumptives at Saranac Lake, was incorporated, August 10, by Drs. Edward R. Baldwin, Edward L. Trudeau and others.

**Vienna Visitor.**—The Roswell Park Medical Club, Buffalo, listened to an address by Dr. Bernard Panzer of Vienna, on "Diseases of the Accessory Sinuses of the Nose in Children." While in Buffalo Dr. Panzer was the guest of Dr. George F. Cott.

**July Deaths in Buffalo.**—The monthly report of the Department of Health for July shows an annual death rate of 17.08 per 1,000. The principal causes of death were as follows: Consumption, 44; cerebrospinal meningitis, 3; cholera infantum, 63; diphtheria, 7; typhoid fever, 12; debility, 32; cancer, 20; apoplexy, 23, meningitis, 12; valvular disease of the heart, 24; pneumonia, 28; appendicitis, 7; diarrhea, 11; gastritis, 6; gastroenteritis, 19; ileocolitis, 10; diabetes, 9; nephritis, 15, and violence, 34. The total deaths for July were 541, as compared to 513 deaths for July, 1903.

### New York City.

**Sir Felix Semon,** D.V.O., physician extraordinary to the king of England, who is to deliver the address on laryngology at the St. Louis Congress of Arts and Sciences, will arrive in New York early next month, where he will be entertained by Drs. George M. Lefferts and Emil Mayer.

**Death Rate Increases.**—For the first quarter of the year there were reported to the health department 12,590 deaths, or 22.58 per 1,000, an increase of 1.60 points on the average for the last five years. This increase was due to the prevalence of measles, influenza, accidents, and a very severe winter.

**Personal.**—Dr. William T. Jenkins, formerly health officer of the Port of New York, has been appointed sanitary engineer in the health department.——Dr. Patrick J. Murray, assistant sanitary superintendent for Brooklyn, has been removed from office. His successor has not been appointed.

**Cancer Hospital Appeals.**—Mother Alphonsa Lathrop, a daughter of Nathaniel Hawthorne, has appealed for public assistance in maintaining the St. Rose's Free Home and hospitals for the destitute cancer patients. The work of caring for thirty or more of these patients is at a standstill.

**Contagious Diseases.**—There have been reported to the sanitary Bureau for the week ended August 6, 366 cases of tuberculosis, with 146 deaths; 232 cases of diphtheria, with 33 deaths; 133 cases of measles, with 6 deaths; 68 cases of scarlet fever, with 2 deaths; 67 cases of typhoid fever, with 13 deaths; 3 cases of smallpox, and 11 cases of varicella.

**Typhoid Fever Epidemic.**—The Board of Health has made a house to house canvass of the neighborhood of the Jerome Park reservoir, where a colony of Italians are at work, and this has resulted in finding twenty-five cases. This reservoir is not being used now, and, therefore, the city of New York is not endangered. Numerous springs are to be found which bubble up from the floor of the big basin, and the board is inclined to believe that here may be found the source. Each of these suspected holes has been labeled "poison" in English and Italian. The water has not yet been examined for the germs of the disease.

### PENNSYLVANIA.

**Much Typhoid in Pittsburg.**—On August 9, 33 new cases of typhoid fever were reported to the Pittsburg Bureau of Health.

**Typhoid at West Chester.**—Thirty cases of typhoid fever have been reported to the board of health within a short time. Efforts are being instituted by the board to discover the cause of the outbreak, as the town has always been remarkably free from the disease. The present rate is only 3 to each 1,000 population, but this is extremely high, as compared with the record of former years.

### Philadelphia.

**New Superintendent for Blockley.**—Mayor Weaver has appointed William F. Defrates superintendent of the Philadelphia Hospital, to succeed the late Robert M. Smith.

**New Medical Inspectors.**—Dr. J. Frank Wallis was recently appointed district medical examiner in place of Dr. Andrew J. Maher, resigned.——Drs. Howard G. Fretz and Harlan Shoemaker have been appointed assistant medical inspectors in the bureau of health, vice Drs. Harold B. Ward and William P. Hearn.

**Bequests.**—By the will of the late Benjamin F. Teller, who died July 15, the Jewish Hospital Association receives $35,000, for the establishment of free beds.——The will of the late Cornelia Thompson devises $10,000 to the Presbyterian Hospital for the endowment of two free beds and $5,000 for a free bed in the Children's Hospital.

**Health Report.**—The increase in typhoid fever during the past three weeks was particularly noticeable in the reports for the last seven days. One hundred new cases and 11 deaths were recorded for the week ending July 13, as compared with 84 cases and 5 deaths for the preceding seven days. There were in all 191 cases of contagious disease reported, as follows: Diphtheria, 40; scarlet fever, 51; typhoid fever, 100. The city still remains totally free from smallpox, no cases being reported since July 9. The general death rate is higher, the total deaths numbering 441. This is an increase of 13 over those of last week and 15 more than for the corresponding period of last year. Seventy-five of the deaths occurred in infants under two years of age.

### SOUTH CAROLINA.

**Personal.**—Dr. Fred L. Potts, Spartanburg, has returned from Philadelphia after having undergone an operation for appendicitis.——Drs. H. W. Shaw and Walter D. Wright have been made members of the board of health of Langley.

**To Transfer Hospital to Society.**—The Medical Society of South Carolina, trustees under the will of Thomas Roper, proposes that the present Charleston City Hospital be conveyed to it for a nominal sum, and that the entire management of the institution be entrusted to the society. The society agrees to expend about $100,000 in the improvement of the hospital buildings, which practically involves their reconstruction and adaptation to conform to modern scientific ideas.

### VIRGINIA.

**Smallpox.**—It is reported that there are more than a hundred cases of smallpox in Buchanan County, 25 or 30 of which are in Grundy, the county seat. The circuit judge, on this account, has decided not to hold the regular session of court.

**Mortality of 1903 in Richmond.**—During 1903, 884 white persons and 1,051 colored died in Richmond; a rate of 19.35 per 1,000 for the former, and 27.84 per 1,000 for the latter. In May occurred the greatest mortality, 201, and in August the least, 123.

**College Incorporated.**—The University College of Medicine, Richmond, has been granted a charter by the corporation commission. The incorporators were Drs. J. Allison Hodges, Stuart McGuire, Paulus A. Irving and Landon B. Edwards, all of Richmond.

**Personal.**—Dr. Elisha Barksdale of Halifax County has succeeded Dr. A. D. Louthan as resident physician at Memorial Hospital, Richmond.——Dr. O. C. Bronk has succeeded Dr. Hugh C. Henry as first assistant physician at the Central State Hospital, Petersburg.——Dr. Herbert M. Nash, Norfolk, has succeeded Dr. Frank A. Walke, deceased, as surgeon of the Pickett-Buchanan Camp of Confederate Veterans.

### GENERAL.

**Osler to Go to Oxford University.**—Dr. William Osler has accepted the regius professorship of medicine at Oxford University in succession to Sir John Burton Sanderson. He will assume the duties of the new position next spring, after completing the school year of 1904-5 at Johns Hopkins. The appointment has been approved by King Edward. Dr. Osler reached New York, August 14, on the White Star liner *Cedric* and is now with his family at Murray Bay, below Quebec, Canada. Dr. Osler has been considering this position for some time and has felt the need of a change from the extraordinary pressure of work now on him. His new position will give him opportunity for more literary work in connection with the mass of clinical data that he has accummulated in his work in this country.

### FOREIGN.

**Medical Study Trips.**—The German medical study trip to the spas of Germany, September 7-17, will be diversified by addresses by Brieger, chief of the Berlin Hydrotherapeutic Institute, Flügge of sputum droplet fame, Goldscheider, Ott, chief of the unique maternity at St. Petersburg, Rosin, Stern and von Strümpel. Dr. W. H. Gilbert of Baden-Baden has the matter in charge, as mentioned on page 1619 of the last volume. The French study trip is in charge of Landouzy, and will start

from Lamotte, September 3, and disband September 15, after visiting Vichy and other spas in Auvergne. These study trips are becoming more and more popular every year, and attract hundreds of physicians for an inexpensive outing with congenial enthusiasts.

**Bacteriologic Institutes in the French Colonies.**—France has organized institutes in her colonies, modeled after the Paris Pasteur Institute. Madagascar, Algiers, Tunis, New Caledonia, Senegal, each has one or more, and French Indo-China has three. It was in one of these Cochin China laboratories that the idea occurred to Calmette to utilize the buffalo for vaccine production, and here also he discovered the ferments utilized now in the production of alcohol. Here also he commenced his studies on snake poison, which resulted in the discovery of his antivenom serum. Yersin's work in one of these laboratories resulted in the production of his anti-plague serum. A "Colonial Congress" has recently been held at Paris, which outlined new tasks for the future, but also showed that more had already been accomplished in the way of hygiene and education than had been realized.

**Pulmonal Infusion.**—Jacob's published communication was reviewed in THE JOURNAL of July 30, page 361, and also on page 434, August 6. In the concluding portion he relates his clinical experience with 5 patients treated by direct infusion of tuberculin into a lower bronchus. The communication was first presented at a meeting of the Berlin Medical Society, and Westenhoeffer created a sensation by stating his impression that the infusion had hastened the fatal termination in one of the patients. He cited the "office register" of the hospital—the Charité—in confirmation of these statements, but Jacob declared that this register was not kept strictly accurate, the main reliance being on the official clinical record kept in each ward. This contention between the physicians led to a spirited debate and Jacob sent a letter to a Berlin daily on the subject. As the "office register" is accepted as testimony in the courts, this official announcement as to its unreliability attracted public attention. Jacob stated that the patient in question was almost moribund, and that the tracheotomy and infusion were done as a possible last resource. The denunciations of his conduct were so bitter, Lazarus and Kohn sustaining Westenhoeffer's assertions, that the appointment of a committee to investigate the matter was considered, but no official steps were taken. He was accused of suppressing certain circumstances and cases in his report, and of performing tracheotomy on subjects presenting no indications for such a measure. His contract with the hospital expires in October, and no steps have been taken by the authorities to renew it.

## Queries and Minor Notes.

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

### CHARGES BETWEEN NURSES AND PHYSICIANS.

R. K., City of Mexico, writes: Is it ethical for a physician to charge a nurse for medical attention? There is a case here in this city which is causing much comment. A nurse was called on a smallpox case and the physician advised her to be vaccinated, and he charged her $1.50; it did not take, and he vaccinated her the second time, charging her the same price. The girl has since had typhoid fever, and now is paying him with what little money she can earn for his services through the fever. He is a graduate of the University of Michigan.

ANSWER.—In reply to the opening question of our correspondent it may be freely stated that there is no general obligation resting on medical men to give gratuitous professional attention to nurses. We are not aware that nurses have ever served physicians or members of their families—except because of personal reasons—for less than they would have asked laymen for like service. Therefore, of course, they can expect no concession in return. In spite of this fact, however, physicians usually are generous, and render to a nurse for professional service a bill much less than would be asked of a layman. In case the nurse is an unusually capable one with whom the physician has been closely associated in the care of the sick she commonly is not called on for a fee. That, however, is a matter of personal relation, not of established interchange of courtesy. As has before been observed, the relation between physician and nurse has never been clearly defined. It is to be regretted that this was omitted from our new and admirable "Principles of Ethics," for there are many points of contact between the two callings that need elucidation. For instance, regarding the point at issue, the claim is set up for the nurse that attendance on a physician in illness takes all her working time, cutting off entirely her means of support, and that therefore gratuitous service is too much to ask. This contention seems irrefutable, so that all the nurse could offer would be some concession in the weekly wage, but, so far as we are informed, this is not the custom. As before noted, the physician should be entirely governed by the local circumstances. If he attends a nurse in a long, serious illness he should be entitled to some compensation. If the service is small, such as a vaccination, and the nurse is well known to the physician, it certainly is customary to make no charge. Regarding vaccination, we believe it to be usual in this country for the physician, in any case, to make no charge for a revaccination when a recent vaccination has failed to "take." From the above observations our correspondent will gather that such a course toward a nurse as that described by him appears wholly indefensible, but that before final judgment could be pronounced on the ethics of such a particular case it would be necessary to learn the circumstances influencing the physician to adopt this course toward this nurse.

### EFFECT OF MORPHIN IN PREGNANCY.

S. K., of Dakota, asks: 1. Does the excessive administration of any drug produce permanent insanity? If so, what drugs? 2. Is it advisable to administer daily large doses of morphia to a pregnant woman for three months prior to her confinement for supposed gastric ulcer? 3. What effect will it have on the child? 4. Is it right to treat a general pruritus occurring in later months of pregnancy with daily hypodermatic injections of morphia? 5. Does continuous administration of morphia produce a general erythematous eruption with general pruritus?

ANSWER.—1. Temporary. 2. Morphin is given most frequently during pregnancy to prevent labor in cases of threatened labor or abortion. It may be employed to meet other indications, but it should not be used for ulcer of the stomach. The approved method of treating this pathologic condition, during pregnancy as in the non-pregnant state, is to keep a patient in bed and put nothing into the stomach for ten to fourteen days, relying wholly on rectal feeding. Then little by little careful feeding is begun. 3. Morphin as well as other alkaloids and soluble drugs will pass through the placenta into the blood of the child. The fetus is affected by morphin administered to the mother, but to what extent is a matter of dispute. No doubt a dose dangerous to the mother may be dangerous to the fetus. Probably a moderate therapeutic dose will not injure the child. When the mother takes morphia regularly during pregnancy the fetus can acquire the morphin habit and suffer afterwards from its sudden withdrawal. 4 and 5. Genital and vulvar pruritis occurring during pregnancy are symptoms of gravidal intoxication, and should be controlled by eliminants, diet and soothing washes or salves. Morphin is not necessary nor desirable since it interferes with elimination and so tends at times to increase the trouble.

### TIME TO TAKE ALKALIES TO MAKE URINE ACID.

DR. WILLIAM C. RILEY, San Francisco, writes: Regarding inquiry of J. W. B., Virginia, page 273, July 23, 1904, as to proper time to give alkalies to make the urine acid: also concerning answer by J. T. Howard, page 342, July 30, 1904, it is pertinent to enquire, does administration of alkalies ever make the urine acid? Clinical and experimental data show the contrary without splitting hairs. I might ask, what is an alkali and what is an alkaline reaction? Sodium bicarbonate ($NaHCO_3$) is usually regarded as an alkali. Is it? Chemically it is an acid salt. Physiologically it acts like an alkali. It acts as an alkali with litmus and with all other indicators used to determine such facts except phenolphthalein; with the latter the pure salt (free from carbonate) acts as an acid, simply because carbonic acid is sufficiently "strong" (to use a common but misleading term) to decompose the weak saline combination of the indicator. Regarding sodium phosphates, there are three well defined salts—the first two, 1, $NaH_2PO_4$, and 2, $Na_2HPO_4$ (ordinary phosphate of soda), being chemically acid salts; the third, 3, $Na_3PO_4$, is chemically a neutral salt. To the taste and to litmus numbers two and three are alkalies. To state that a given chemical is acid or alkaline one must state the indicator used. Thus a solution of sodium phosphate neutral to litmus is alkaline to dimidiocosobensole, alizarin (alizarin monosulphonate of sodium), methyl orange and tropeolin, and also to the tongue. It is acid to phenolphthalein (unless boiled). A solution of sodium phosphate, which is acid to litmus and also to taste, is alkaline to all the other indicators save phenolphthalein. A solution of sodium phosphate alkaline to litmus and to taste is alkaline to all other indicators save phenolphthalein, and it reacts red to that when boiled. ($NaHCO_3$ being split up into $Na_2CO_3$ and $CO_2$, the latter being driven off). So, all theory aside, how in the world can one obtain an acid salt of phosphoric acid by adding alkalies to a neutral salt, or even to an acid salt of the same base. It is too utterly absurd.

### RELATION OF SEX OF CHILD TO THE RELATIVE AGE OF PARENTS.

W. K. L., of Havana, writes: Is there any law in regard to the influence of age of married couples on their offspring? I understand that if the mother is older than the father the children begotten from such parents will be females.

ANSWER.—According to the theory of Hoffacker and Sadler, which was promulgated about seventy-five years ago, the sex of the child is likely to be the same as that of the older parent when there is disparity in the ages of the parents. This theory has been overthrown by Berner and others. Certain statistics tend to prove the contrary, namely, that the sex of the child is more apt to be that of the younger parent. The problem of the determination of sex is still unsolved, and there are no collections of statistics or other data from which we can deduce rules available for practical application.

INFANT SWALLOWS AND SAFELY EXPELS LARGE WIRE STAPLE.

DR. C. D. STRATTON, Rothville, Mo., writes: About July 18, 1904, I was consulted by a mother in regard to her 9-months-old baby swallowing a common fence staple. She said she felt it as it passed into the gullet sharp points down. The child was limp and pale for a few minutes, when all was as well as usual. I told her that she was probably mistaken, as it was almost impossible for a child to swallow such a thing. The anxious mother continued to watch, however, and at the end of 17 days the staple passed without in any way harming the child. It measured 1¼ x ½ inch and was as sharp as these instruments usually are.

ANSWER.—Although such sharp objects often pass through the canal without doing harm, they sometimes lodge or inflict other injury. If a child is old enough, free administration of slippery elm bark may be tried. Cases are reported in which the fibers have enveloped the sharp object, completely protecting the mucosa.

## Marriages.

CLARA L. KEMBAL, M.D., Bloomfield, Iowa, to C. H. Cronk of Tama, Iowa, July 31.

GEORGE A. HARTMAN, M.D., to Miss Agnes Graham, both of Baltimore, August 1.

W. FRANK ASHMORE, M.D., to Miss Lucia Cater, both of Anderson, S. C., August 2.

DAVID L. AXILROD, M.D., to Miss Lillian Aronsohn, both of St. Paul, Minn., August 3.

O. E. SPILLER, M.D., Mauldin, Mo., to Miss Ruby Farley of Memphis, Tenn., August 9.

ALCIMUS H. BASKIN, M.D., to Miss Agnes Hermena Muller, both of Atlanta, Ga., August 3.

RODERICK B. CHISHOLM, M.D., to Miss Belle Hayes, both of La Porte City, Iowa, August 3.

JUSTIN J. LEAVITT, M.D., Molalla, Ore., to Miss Sophia M. Boyles of Portland, Ore., August 2.

CHARLES H. LUDLOW, M.D., Covington, Ind., to Miss Coralie Daniels of Savoy, Ill., in November, 1903.

HARRY A. STALKER, M.D., Pond Creek, Okla., to Miss Maude Webster of Durand, Ill., at Rockford, Ill., August 4.

CHARLES EDWIN FRENCH, M.D., San Francisco, Cal., to Miss Gertrude Twineham of Cincinnati, Ohio, at Princeton, Ohio, August 16.

## Deaths.

**Orlando Brown, M.D.** Yale University Medical Department, New Haven, Conn., 1851, assistant surgeon of the Eighteenth Massachusetts Volunteer Infantry, later inspector of hospitals, and in 1865 made colonel of the Twenty-fourth U. S. Infantry; brevetted brigadier-general for gallant conduct in the service; organizer of the Bureau of Freedmen and Refugees; who resigned his commission in 1869, and resumed practice in Washington, Conn., once president of the Litchfield County Medical Society and president of the Connecticut State Medical Society in 1889, died at his home in Washington, August 4, after an illness of several months, aged 77.

**John O'Flaherty, M.D.** Albany (N. Y.) Medical College, 1864, a member of the Connecticut State and Hartford County medical societies; president of the Hartford Medical Society; assistant surgeon of the One Hundred and Seventeenth New York Infantry in the Civil War; for several years president of the medical board of St. Francis Hospital, died at his home in Hartford, July 31, from nephritis, after an illness of seven months, aged 62.

**Albert Preston Fulkerson, M.D.** Jefferson Medical College, Philadelphia, surgeon in the Confederate service during the Civil War, died at the home of his brother in Lexington, Mo., from meningitis, after an illness of three weeks, aged 68.

**Romeo F. Chabert, M.D.** New York University, New York City, 1856, of Hoboken, N. J., founder and consulting surgeon of St. Mary's Hospital, and consulting physician to Bayonne Hospital, died at his summer home in Asbury Park, N. J., August 1, after an operation for intestinal obstruction, aged 76.

**Walter J. Byrne, M.D.** Medical Department St. Louis University, 1848, surgeon of the Ninth Kentucky Infantry, C. S. A., during the Civil War; some-time superintendent of Central Kentucky Hospital for the Insane, Lakeland, died at his home in Russellville, Ky., August 1, after a short illness, aged 80.

**George W. Menees, M.D.** University of Nashville (Tenn.) Medical Department, 1835, a member of the American Medical Association, and one of the oldest and best-known physicians of Robertson County, Tenn., died at his home in Springfield from peritonitis, August 1, after an illness of two days, aged 70.

**Frank J. Havlicek, M.D.** Medical Department of Adelbert College of the Western Reserve University, Cleveland, Ohio, 1882, a member of the American Medical Association, and a well-known practitioner of Cleveland, died suddenly at his home in that city, August 7, from cerebral hemorrhage, aged 45.

**A. Carter Webber, M.D.** Harvard University Medical School, Boston, 1849, the dean of the medical profession of Cambridge, Mass., who retired from practice in 1900, died suddenly at the home of his son in Manchester-by-the-Sea, Mass., August 5, from acute bronchitis, aged 78.

**Henry M. W. Moore, M.D.** Columbus (Ohio) Medical College, 1885, a member of the American Medical Association and a veteran of the Spanish-American War, died at his home in Columbus, August 6, from an overdose of chloral, aged 42.

**Felix F. Cassaday, M.D.** Jefferson Medical College, Philadelphia, 1867, a member of the American Medical Association and of the Philadelphia County Medical Society, died at his home in Philadelphia, from apoplexy, August 2, aged 62.

**Charles Thomas Varnon, M.D.** University of the State of Missouri Medical School, Columbia, 1876, coroner of Audrain County, Mo., died at his home in Mexico, Mo., from Bright's disease, July 24, after a long illness, aged 53.

**John N. Woodruff, M.D.** College of Physicians and Surgeons in the City of New York, state senator in 1897; probate judge for several years, died suddenly from heart disease at his home in Sherman, Conn., July 18, aged 68.

**John Leonard Evans, M.D.** University of Louisville (Ky.) Medical Department, 1888, of Colorado Springs, Colo., died at Norton Infirmary, Louisville, July 30, from pulmonary abscess, after an illness of four years, aged 38.

**Charles Newton Thompson, M.D.** Bellevue Hospital Medical College, New York City, 1884, of New York City, for many years surgeon of the Ninth Infantry, N. G., N. Y., died at Nantucket, Mass., August 7, aged 54.

**Francis B. Ambler, M.D.** Denver College of Medicine, University of Denver, Colo., 1897, of Northville, Mich., died at St. Mary's Hospital, Detroit, August 7, one day after an operation for intestinal obstruction, aged 38.

**James Henry Reynolds, M.D.** Detroit (Mich.) Medical College, 1871, formerly mayor of Adrian, Mich., died at his home in that city from cerebral hemorrhage, July 30, after an illness of one week, aged 59.

**Abial W. K. Newton, M.D.** Department of Medicine of the University of Pennsylvania, Philadelphia, 1871, some-time coroner of Suffolk County, Mass., died at his home in Boston, August 1, aged 68.

**David Y. Winston, M.D.** Department of Medicine of the University of Pennsylvania, Philadelphia, 1888, died at his home in Clarksville, Tenn., August 7, from typhoid fever, after a short illness, aged 42.

**Thomas Franklin Thornton, M.D.** Detroit (Mich.) Medical College, 1873, of Grand Ledge, Mich., died at St. Mary's Hospital, Detroit, August 3, from diabetic gangrene, after an illness of three weeks.

**Evans Prothro, M.D.** Memphis Hospital Medical College, 1898, of England, Ark., died at the home of his brother near Little Rock, Ark., from sunstroke, after an illness of only a few hours, aged 32.

**Henry S. Kimmel, M.D.** Cincinnati College of Medicine and Surgery, 1861, a member of the state and county medical societies, died at his home in Dayton, Ohio, August 6, aged 70.

**Gabriel H. Hill, M.D.** Louisville (Ky.) Medical College, 1874, of Charlottesville, Va., died at Spartansburg, S. C., July 15, from the effects of a fall received several weeks before, aged 69.

**Richard C. Bond, M.D.,** Miami Medical College, Cincinnati, 1857, of Aurora, Ind., died at the home of his sister in Quiet Dell, W. Va., July 7, from pneumonia, after an illness of five days, aged 83.

**Robert Milbank, M.D.** New York University, New York City, 1878, of New York City, visiting physician to New York Infant Asylum, died at Byram Shore, N. Y., from apoplexy, August 4, aged 66.

**Alfred A. Wall, M.D.** Department of Medicine of the University of Pennsylvania, Philadelphia, 1849, of Tuscumbia, Ala., died at the home of his son in Jasper, Ala., July 11, aged about 80.

**R. Bliss Kennedy, M.D.** Beaumont Hospital Medical College, St. Louis, 1901, died at his home in Burlington Junction, Mo., July 26, from the effects of a self-inflicted gunshot wound of the head.

**Joseph Weaver, M.D.** Medical College of Ohio, Cincinnati, 1838, who retired from practice in 1870, died at his home in Miamisburg, Ohio, July 19, after an illness of eight days, aged 87.

**John McClary Steele, M.D.** Laval University Medical Department, Quebec, 1890, while suffering from melancholia, shot and killed himself at his home in Worcester, Mass., August 1, aged 37.

**James Hutchinson, M.D.** Missouri Medical College, St. Louis, 1876, died at his home in Boling, Kan., from disease of the digestive apparatus, August 3, after an illness of four months, aged 62.

**William B. Rehling, M.D.** Rush Medical College, Chicago, 1903, of Alhambra, Ill., died at the home of his mother in Waterloo, Ill., from typhoid fever, July 28, after an illness of three weeks, aged 26.

**William C. Darnall, M.D.** Vanderbilt University Medical Department, Nashville, Tenn., 1890, died at his home in Huntsville, Ala., from consumption, July 28, after a lingering illness, aged 35.

**Benjamin F. Eglesston, M.D.** University of Buffalo (N. Y.) Medical Department, 1882, died from apoplexy at his home in Churchville, N. Y., July 25, after an illness of only a few hours, aged 58.

**Robert L. Gattis, M.D.** University of Maryland School of Medicine, Baltimore, 1888, died at his home in Chapel Hill, N. C., July 29, from typhoid fever, after an illness of six weeks, aged 34.

**George A. Thomas, M.D.** Louisville Medical College, 1878, a member of the American Medical Association, surgeon to the Indiana Railroad, died at his home in Linton, Ind., August 1.

**Thomas Ballard McDow, M.D.** Medical College of the State of South Carolina, Charleston, 1879, was found dead in bed at his home in Charleston, July 26, from heart disease, aged 49.

**John J. Adderhold, M.D.** Atlanta (Ga.) Medical College, 1901, of Worth, Ga., died at the Macon City Hospital, July 30, from pneumonia, a short time after a mastoid operation, aged 38.

**Clarence M. Boyd, M.D.** Northwestern Medical College of St. Joseph, Mo., 1892, of St. Joseph, died at Ensworth Hospital in that city, July 17, from cerebral hemorrhage, aged 33.

**George Ernest Mayhew, M.D.** College of Physicians and Surgeons of Chicago, 1897, of Red Bluff, Cal., died at Colyear Springs, Cal., July 19, after a long illness, aged 32.

**Henry Venne, M.D.** Faculty of Medicine of Queen's University, Kingston, Ont., 1861, died at the Old Folks' Home, Mattoon, Ill., from Bright's disease, July 14, aged 70.

**Martin B. Kellar, M.D.** Miami Medical College, Cincinnati, 1868, died at his home in Vallejo, Cal., July 8, from heart disease, after an illness of several months, aged 61.

**C. A. Stanfield, M.D.** Memphis (Tenn.) Medical College, died at his home in Toledo, Ark., August 3, after a lingering illness.

**William R. McLaren, M.D.** Illinois, 1871, died suddenly at his home in Detroit, Mich., July 28, from angina pectoris, aged 55.

**Charles A. Scribner, M.D.** Illinois, 1891, died suddenly at his home in Dalton, Mich., June 28, from angina pectoris, aged 44.

**John S. Lampman, M.D.** Pennsylvania, 1859, died at his home in Wilkesbarre, Pa., August 5, after a short illness, aged 65.

**J. T. Stoddard, M.D.,** of Jonesboro, Ark, died at Orlando, Fla., July 23, from Bright's disease, after an illness of two years.

**Helen Gray Da Costa, M.D.** Woman's Medical College of Chicago, 1898, died March 13, at Princeton, Ind., aged 29.

**David B. Taylor, M.D.** Ohio, 1869, died suddenly at his home in Millburn, Ill., August 1, from heart disease, aged 78.

**Thomas W. McGaughey, M.D.** Chicago Medical College, 1892, died at his home in Pennington Point, Ill., February 28.

**Guy W. O. Mitchner, M.D.** Barnes Medical College, St. Louis, committed suicide at Guthrie, Okla., March 28, aged 25.

**C. C. McKinley, M.D.** College of Medicine and Surgery, Cincinnati, 1865, died recently at Champaign, Ill., aged 76.

**Mark R. Wright, M.D.** Medical College of Alabama, Mobile, 1873, died at his home in Knox, Ind., June 25, aged 68.

**Lewis B. Stewart, M.D.** Indiana, 1897, died at his home in Marengo, Ind., August 1, from heart disease, aged 83.

### Death Abroad.

**William Alexander McKeown, M.D.,** R.U.S. 1869; Fellow of the Royal Academy of Medicine of Ireland; surgeon to the Ulster Eye, Ear and Throat Hospital, Belfast; lecturer in ophthalmology and Otology, Queen's College, Belfast; sometime president of the Ulster Medical Society, and of the North of Ireland Branch, British Medical Association, an ophthalmologist of more than local renown, whose most important advances in his specialty were the use of the magnet for the removal of metallic foreign bodies from the eyeball, and the operative treatment of immature cataract, died at his home in Belfast, July 9, aged 60.

**Sir Frederic Bateman, M.D.** Aberdeen, 1850; M.R.C.S. Eng., 1849; M.R.C.P. Lond., 1866; F.R.C.P. Lond., 1876; L.S.A., 1850; eminent as a physician, scientist and psychologist, a member of many English and foreign learned societies, laureate of the Academy of Medicine of France, and medical and sociological author of repute; consulting physician to Norfolk and Norwich Hospital; knighted by the Queen in 1892, died at his home in Norwich, England, August 10, aged 80.

## The Public Service.

### Army Changes.

Memorandum of changes of station and duties of medical officers, U. S. Army, week ending Aug. 13, 1904:

Weed, Frank W., asst.-surgeon, ordered to proceed from Fort McHenry to Fort Howard, Md., for temporary duty.

Freeman, Paul L., asst.-surgeon, ordered to proceed from Fort Slocum, N. Y., to Fort Warren, Mass., for temporary duty.

Reilly, John J., asst.-surgeon, leaves Jackson Barracks, La., on thirty days' sick leave.

Hathaway, L. M., asst.-surgeon, relieved from duty at Fort Davis, Alaska, and ordered to Fort Gibbon, Alaska.

Helsmann, Chas. L., asst.-surgeon general, granted fifteen days' leave of absence.

Dale, F. A., asst.-surgeon, granted thirty days' leave of absence about September 1.

Ashburn, P. M., asst.-surgeon, left Fort Missoula, Mont., with troops on practice march.

Gosman, Geo. H. R., asst.-surgeon, assignment to duty with troops at maneuvers, Manassas, Va., is revoked.

Little, Wm. L., asst.-surgeon, ordered to accompany troops from Camp Geo. H. Thomas, Ga., and for duty with same at maneuvers, Manassas, Va., Aug. 28, 1904.

Reno, Wm. W., asst.-surgeon, assignment to duty at Manassas, Va., during maneuvers revoked.

Reno, Wm. W., asst.-surgeon, relieved from duty at Fort Crook, Neb., and ordered to duty with troops at the Louisiana Purchase Exposition, St. Louis.

Church, James R., asst.-surgeon, sick leave of absence extended two months.

Lyster, Theo. C., asst.-surgeon, reported at Ancon, Canal Zone, Isthmus of Panama, left West Point, N. Y., July 7, 1904.

Barney, Chas. N., asst.-surgeon, ordered to accompany detachment hospital corps from Fort Jay, N. Y., to Gainesville, Va., not later than Aug. 18, 1904.

The following-named medical officers will report, Aug. 18, 1904, to the Division surgeon, First Provisional Division, near Manassas, Va.: Capt. W. F. Truby at Fort Preble, Me.; Capt. H. S. Greenleaf, Fort Moultrie, S. C.; First Lieut. Geo. H. Crabtree, Fort Jay, N. Y.; First Lieut. Wilfrid Turnbull, Fort Strong, Mass.; First Lieut. Geo. W. Jean, Fort Wadsworth, N. Y.; First Lieut. Jas. L. Bevans, Fort Barrancas, Fla.

To the Division surgeon, Second Provisional Division, near Thoroughfare, Va.: Capt. P. C. Fauntleroy, Madison Barracks, N. Y.; Capt. B. H. Dutcher, Fort Hancock, N. J.; Capt. E. H. Hartnett, Key West Barracks, Fla.; Capt. Clyde S. Ford, Fort H. G. Wright, N. Y.; First Lieut. Wm. L. Little, Camp Geo. H. Thomas, Ga.

To the First Provisional Division near Manassas, Va.: Major Charles Willcox, Fort Totten, N. Y., to accompany troops from Fort Slocum, N. Y.; Major Jos. T. Clarke, Fort Ethan Allen, Vt., to accompany troops from that post; Major Henry A. Shaw, Fort Adams, R. I.; Capt. Jas. S. Wilson, to accompany troops from Fort Myer, Va.; Capt. E. R. Schreiner, Fort McHenry, Md.; First Lieut. Chandler P. Robbins, Fort Terry, N. Y.; First Lieut. Henry S. Kierstead, Fort Myer, Va., to accompany troops from Washington Barracks, D. C.; First Lieut. Frank T. Woodbury, Plattsburg Barracks, N. Y., to accompany troops from that post; First Lieut. Compton Wilson, Fort Howard, Md.; First Lieut. I. W. Patton, Fort Hamilton, N. Y., to accompany troops from that post to

Gainesville, then to proceed to Maneuver Camp No. 1; First Lieut. William Roberts, Fort Caswell, N. C.; First Lieut. Robert M. Thornburgh, Fort Warren, Mass.; First Lieut. C. C. Whitcomb, Fort McKinley, Me.; First Lieut. Park Howell, Fort McPherson, Ga., to accompany troops from that post; First Lieut. Percy L. Jones, Fort Monroe, Va.; First Lieut. Howard H. Baily, Plattsburg Barracks, N. Y., to accompany troops from that post.

To the Second Provisional Division near Thoroughfare, Va.: Major Henry C. Fisher, Camp Geo. H. Thomas, Ga., to accompany troops from that camp, Capt. H. M. Hallock, Fort Porter, N. Y., to accompany troops from that post; Capt. Ira A. Shimer, Fort Niagara, N. Y., to accompany troops from Madison Barracks, N. Y., to which place he will proceed in due time; Capt. Douglas F. Duval, Fort Williams, Me.; First Lieut. Walter Cox, Fort Banks, Mass.; First Lieut. A. W. Williams, Fort Oreble, R. I., to accompany troops from Fort Jay, N. Y.; First Lieut. Wm. H. Brooks, Fort Washington; First Lieut. Reuben B. Miller, Fort Screven, Ga.

Stallman, George E., contract dental surgeon, Kuhn, Charles F., and Reddy, Joseph W., contract surgeons, sailed August 1 from San Francisco on the transport *Logan* for Manila, P. I. The first-named has just entered the service; the other two are returning from leaves of absence spent in the United State.

Vaughan, Milton, contract surgeon, relieved from further duty in the Philippine Division and directed to proceed at the expiration of his present leave of absence from Little Rock, Ark., to Fort Douglas, Utah, for duty.

Foulkes, Bruce, contract surgeon, returned July 28 to his proper station, Vancouver Barracks, Wash., from temporary duty at American Lake, Wash.

## Navy Changes.

Changes in the medical corps, U. S. Navy, for the two weeks ending Aug. 13, 1904:

Grunwell, A. G., surgeon, ordered to the *Dixie*.

McDonnold, P. E., P. A. surgeon, commissioned P. A. surgeon, with rank of lieutenant, from July 2, 1904.

McDonnell, W. N., A. A. surgeon, detached from the *Marcellus* and ordered to the Naval Recruiting Rendezvous, Baltimore, Md.

Dabney, V., A. A. surgeon, detached from the Naval Recruiting Party No. 3 and ordered home to wait orders.

Dean, R. C., medical director, detached from duty as a member of the Naval Retiring Board, Washington, D. C., and ordered home.

Duncan, G. F., A. A. surgeon, detached from the Naval Recruiting Party No. 2, and ordered to the *Franklin*.

Janney, W. R., A. A. surgeon, detached from Naval Recruiting Party No. 1 and ordered to the *Marcellus*.

Lung, G. A., surgeon, detached from the *Hancock* and ordered to the *Kentucky*.

Guest, M. S. P. A. surgeon, detached from the *Kentucky* and ordered to Washington, D. C., Sept. 1 for examination for promotion, and then to wait orders.

Asserson, F. A., asst.-surgeon, detached from the *Kentucky* and ordered home to wait orders.

Deanes, P. T., asst.-surgeon, detached from the Naval Academy and ordered to the *Kentucky*.

## Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ended Aug. 4, 1904:

Purviance, Geo., asst.-surgeon general, granted extension of leave of absence from June 20 to June 30, inclusive.

Banks, C. E., surgeon, granted leave of absence for one month and fifteen days from August 12.

Sprague, E. K., P. A. surgeon, to report to Surgeon G. W. Stoner, Immigration Depot, New York, for duty.

Greene, J. R., P. A. surgeon, on the return of Asst.-surgeon H. McG. Robertson, relieved from duty at New York (Stapleton) and directed to proceed to Fort Stanton as inspector of unserviceable property. On completion of this duty to remain at Fort Stanton and await further orders.

Lavinder, C. H., P. A. surgeon, relieved from duty at Delaware Breakwater Quarantine and directed to proceed to New York (Stapleton) and report to medical officer in command for duty and assignment to quarters.

Foster, M. H., P. A. surgeon, granted leave of absence for fourteen days.

Trotter, F. E., asst.-surgeon, granted leave of absence for ten days from August 5.

Fahrenburg, L. P. H., asst.-surgeon, to assume command of service at Delaware Breakwater Quarantine, relieving P. A. Surgeon C. H. Lavinder.

Salmon, T. W., asst.-surgeon, granted leave of absence for seven days from Aug. 2, 1904, under Paragraph 191 of the Regulations.

Porter, J. Y., sanitary inspector, to proceed to Havana, Cuba, for special temporary duty, and to inspect the disinfecting steamer *Senator*.

Brice, J. W., A. A. surgeon, granted leave of absence for thirty days from September 20.

Foster, J. P. C., A. A. surgeon, granted leave of absence for thirty days from August 1.

Stuart, A. F., A. A. surgeon, Department letter of June 22, granting leave of absence for thirty days from July 1, amended to read twenty one days.

Rogers, Edward, pharmacist, granted leave of absence for sixteen days from August 5.

Troxler, R. F., pharmacist, granted leave of absence for thirty days from September 5.

Neves, Geo., pharmacist, granted leave of absence for thirty days from August 27.

BOARD CONVENED.

Board to meet at Port Townsend, Wash., for the physical examination of candidates for second assistant engineer in the Revenue Cutter Service. Detail for the board: P. A. Surgeon J. H. Oakley, chairman; A. A. Surgeon W. E. Patrie, recorder.

PROMOTIONS.

Asst.-Surgeons T. R. McClintic, Joseph Goldberger and W. A. Korn commissioned (recess) as P. A. surgeons, to rank as such from July 28, July 27 and July 27, 1904, respectively.

## Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the week ended Aug. 12, 1904:

SMALLPOX—UNITED STATES.

District of Columbia: Washington, July 30-Aug. 6, 1 case.
Illinois: Peoria, July 1-31, 4 cases.
Louisiana: New Orleans, July 31-Aug. 6, 1 case.
Massachusetts: North Adams, July 31-Aug. 6, 2 cases, 1 death.
Michigan: At 72 places, July 23-30, present.
Missouri: St. Louis, July 31-Aug. 6, 2 cases.
New Hampshire: Manchester, July 31-Aug. 6, 1 case.
New York: New York City, July 31-Aug. 6, 3 cases.
Ohio: Zanesville, July 2-30, 3 cases.
Pennsylvania: Johnstown, July 31 Aug. 6, 1 case.
Tennessee: Nashville, July 31 Aug. 6, 1 case.
Wisconsin: Milwaukee, July 31-Aug. 6, 1 case.

SMALLPOX—FOREIGN.

Brazil: Rio de Janeiro, June 26-July 3, 200 cases, 117 deaths.
Canada: Winnipeg, July 23-30, 1 death.
Colombia: Barranquilla, July 18-24, 1 death.
France: Marseilles, June 1-30, 3 deaths; Paris, July 16-23, 17 cases, 1 death; Rouen, June 1-30, 3 deaths.
Great Britain: Glasgow, July 22-29, 7 cases, 2 deaths; Liverpool, July 16-30, 6 cases; July 9-16, London, 7 cases; Manchester, 2 cases; Newcastle-on Tyne, 10 cases, 1 death; July 16-23, Nottingham, 2 cases; Sheffield, 1 case.
India: Bombay, June 28 July 12, 24 cases.
Italy: Palermo, July 16-23, 1 death.
Mexico: City of Mexico, July 17-24, 2 cases, 2 deaths.
Russia: Moscow, July 9-16, 5 cases, 5 deaths; Odessa, July 16-23, 1 case; Warsaw, June 25-July 2, 20 deaths.
Turkey: Constantinople, July 17-24, 10 deaths.

YELLOW FEVER.

Brazil: Rio de Janeiro, June 26-July 3, 3 cases, 1 death.
Mexico: July 24-30, Merida, 1 case, 1 death; Tehuantepec, 4 cases, 1 death; Vera Cruz, 1 case.

CHOLERA.

Persia: Teheran, July 9, severe epidemic.
Straits Settlements: Singapore, June 10-18, 1 death.
Turkey: June 30, Bagdad, 3 cases, 1 death; villages, 404 deaths.

PLAGUE—INSULAR.

Hawaii: Honolulu, Aug. 4, 1 death.

PLAGUE—FOREIGN.

Egypt: July 2-9, 31 cases, 15 deaths.
Formosa: June 25-July 2, 35 cases, 37 deaths.
India: Bombay, June 22-July 12, 73 deaths.
Peru: June 25 July 2, Callao, 2 deaths; Lima, 4 cases, 1 death.

# Society Proceedings.

## COMING MEETINGS.

AMERICAN MEDICAL ASSOCIATION, Portland, Ore., July 11-14, 1905.

Academy of Ophthalmology and Otolaryngology, Denver, August 24-26.
Medical Society of the Missouri Valley, Council Bluffs, Iowa, August 25.
Oregon State Medical Association, Portland, August 30-31.
Rocky Mountain Interstate Medical Association, Denver, Sept. 6-7.
Wyoming State Medical Society, Rawlins, September 13.
American Electro-Therapeutic Assn., St. Louis, September 13-15.
American Association of Obstetricians and Gynecologists, St. Louis, September 13-16.
Medical Society of the State of Pennsylvania, Pittsburg, September 27-29.

## BRITISH MEDICAL ASSOCIATION.

*Seventy-Second Annual Meeting, held at Oxford, July 26-30, 1904.*

(*Continued from Page 510.*)

### The President's Address.

The subject of the address of the president, Dr. William Collier, was "The Growth and Development of the Oxford Medical School." He contrasted the present condition with that in 1878, when a correspondent of the *British Medical Journal* wrote a long letter complaining that the study of medicine was completely overlooked at Oxford, that no teaching was being given in the preliminary medical subjects, and that the medical faculty had practically ceased to exist. Dr. Collier stated that as a result of the controversy following this letter the subject was taken up by the British Medical Association and the present medical school was established.

Dr. Collier spoke of the influence of the university student on other medical students, referring to the time when any outbreak of rowdyism in London was attributed to medical students, and ascribing the change for the better to the influence of university graduates, who are generally older men with a more settled purpose in life and a clearer and better idea of

what constitutes good and bad form. He pointed out that the standard of general culture is distinctly raised by a university education, and correspondingly the status of the medical profession.

Dr. Collier referred to famous men who had been associated with Oxford in the past, notably Linacre, founder of the Linacre professorship of comparative anatomy; Harvey, the discoverer of the circulation of the blood; Willis, famous for his description of the anatomy of the brain, particularly the circle of Willis; Wren, the architect of St. Paul's Cathedral, who made the drawings to illustrate Dr. Willis' work on the anatomy of the brain; Radcliffe, who left the bulk of his estate to the college to build a library which is now known as the Radcliffe Library; Sydenham, and many others.

In conclusion, Dr. Collier spoke of the previous meetings of the association in Oxford, the first of which was in 1835 and was attended by 300 members. The second meeting at Oxford was in 1852, and the third in 1868. He spoke of the influence of the association not only in Great Britain but throughout the empire, the association having branches in India and the colonies. He reminded the association that its power for good was due to the united and unremitting labors of many workers, and that no hasty nor unwise action must be allowed to jeopardize its further development.

### Report of Hospital Committee.

The following report of the hospital committee was adopted: 1. Poverty and sickness shall be the conditions for admission of all patients for hospital treatment. 2. No charge for treatment shall be made, though voluntary contributions may be accepted. 3. The production of subscribers' letters shall cease to be compulsory, and that, where possible, the system shall be abolished. 4. Some means of investigation into the circumstances of applicants for relief shall be employed in all medical charities, and where possible a special officer shall be appointed for this work. 5. Except in emergencies, before a patient is admitted into any hospital evidence shall be obtained on two points, (a) that the patient is not in a position to pay for treatment, (b) that the case is, from the hospital point of view, suitable for treatment. 6. All cases of serious accident and severe sudden illness shall be attended on their first application, and, if deemed eligible for further treatment, shall be referred to the appropriate department of the hospital, but if ineligible shall be referred for treatment elsewhere. 7. All cases of trivial accident or illness deemed ineligible for the outpatient department shall, after being attended to, be referred for treatment elsewhere. 8. It is inexpedient that any patient be able to leave the hospital without having been seen by a registered medical practitioner. 9. The number of new cases seen on one day by an honorary medical officer be limited. 10. Special hospitals shall treat only cases strictly within the scope of their work. 11. In all hospitals there shall be an age limit for the retirement of medical officers.

### Address in Medicine.

The address in medicine was delivered by Sir William Selby Church. He spoke of the advance made in the different branches of medicine since the last meeting of the association at Oxford in 1868, especially in bacteriology, physiology and tropical medicine. He spoke of the discoveries which have been made in the agglutinative, bactericidal and hemolytic properties of the blood serum, and of the advances which have been made in the field of serum therapy.

He spoke of the advance in physiologic knowledge which was attained with the recognition of the connection between myxedema and the diseased conditions of the thyroid gland. He also spoke of the internal secretions of other glands, such as the suprarenal, and in connection with this mentioned the researches of Schäfer and Oliver, which have proved the physiologic action of the extract of the suprarenal glands to be both active and powerful.

In regard to tropical medicine, he spoke of the work which has been done in malaria and yellow fever; the discoveries of Castelani, Bruce and Nabarro in the African sleeping sickness, and the experiments of Leishman, Donovan, Ross and Christopher, which tend to show that the chronically enlarged spleen found in malaria is probably due to some other micro-organism.

The active part taken by the association in securing public health legislation and laws regulating the practice of medicine in the British Isles was described. He also spoke of the bill which the association has drawn up providing for increased supervision of the sale of foods and drugs, the necessity for proper sanitation and hygiene in villages and small towns, as well as in larger cities.

He spoke at some length on the necessity for pure air in dwellings and condemned the modern style of architecture which crowded houses and apartments together and did not permit free access of air to the dwellings. In conclusion he quoted statistics to prove that the rate of mortality is in direct proportion to the density of the population.

### Treatment of Chronic Renal Disease.

At the section on medicine Dr. Hale White, London, spoke on "The Treatment of Chronic Renal Disease." He said that treatment might be divided into the treatment of particular symptoms and treatment employed owing to theoretical views of the nature of the disease. He said that albuminuria is often treated, but it is forgotten that the mere presence of albumin in the urine is of itself of no importance except as an aid to diagnosis. It is so frequent in heart disease, fevers, etc., that half the patients who have albuminuria have not Bright's disease; yet it is never treated in these conditions. Many persons pass albumin in the urine for 20 years or more without harm. The loss of proteid in Bright's disease is trifling and can easily be counterbalanced by a little more food. Frequently patients are injured by the alarm engendered by frequent examinations of the urine.

*Diet.*—A milk diet, which is chiefly relied on to reduce the albumin, fails to do so and injures the patient. Some patients have a high-tension pulse and a hypertrophied heart. In such cases the tension must be reduced by restricting exercise, regulating the bowels, avoiding alcohol, meat extractives, excess of meat food and the drinking of much fluid, and in such cases digitalis should never be ordered. In another class, where the pulse tension is low and the heart weak, the mistake is made of keeping patients on a limited milk diet in the hope of relieving the kidneys, with the result that the patients become enfeebled and the heart fails; such patients improve on an ordinary diet. A patient with chronic nephritis is often injured by starvation. Some patients are kept too much in bed and the body becomes flabby. On the other hand, acute and subacute cases are not kept in bed sufficiently; some take too little exercise and become fat, giving the heart more work. It is best for patients to drink a normal quantity of fluid.

To sum up, keep vascular tension normal without the aid of drugs. Slight edema is best treated by posture, limiting the fluid drunk and keeping the bowels regular. The most efficient way to get rid of edema is by Southey's tubes, but antiseptic precautions are necessary.

*Medicinal Treatment.*—Such drugs as cantharides must be used carefully; blisters are often applied incautiously. Drugs which are excreted with difficulty, such as lead and digitalis, must be given with care. As to morphia, small doses are sometimes fatal; therefore, it should rarely be given. Sulphonal and trional should not be given, for they may induce hematoporphyrinuria. Alcohol in moderate quantities will not injure the kidneys, but it should not be given if the pulse tension is high.

Granular kidney is frequently treated too zealously, and the patient injured by starvation. We do not know for certain that any ordinary article of diet is harmful. I give the patient good, plain, ordinary foods, but exclude sauces and condiments, which may possibly cause harm. There is nothing to show that red meat is more injurious than white. In chronic parenchymatous nephritis similar mistakes are made until the patient loathes his farinaceous diet. His last days may be rendered happier by removing useless restrictions. Tea, tobacco and coffee should be used with moderation, in consequence of

their rendering the pulse irregular. Water is given excessively, inducing hydremic plethora and injurng the heart.

In a few cases of tubal nephritis without edema an extra pint of water may be given daily to wash away the dead epithelium. We do not know the nature of the poison in uremia. There is a vague belief that it is due to nitrogenous retention, but it may develop on a farinaceous diet. The only treatment is to help all the excretions. It is of little use trying to stimulate the kidneys. Give plenty of hot fluid, such as weak tea, or transfuse with a saline solution. Pilocarpin may do harm. Severe convulsions may be relieved by inhalation of chloroform. The skin may be stimulated, but excessive sweating should be avoided. A warm bath may be given every night.

*Climate.*—Egypt is the ideal climate. For a few an occasional Turkish bath may be allowed. Keep the skin warm by means of woolen underclothing. We should not be too quick to check diarrhea and vomiting, which may be eliminative. It should be remembered that the patients bear operation badly.

DISCUSSION.

PROFESSOR VAN NOORDEN maintained that neither physiologic nor clinical evidence showed that white meat has any advantages over red meat. He has found it unnecessary to give great quantities of fluid, which injures the heart. Systematic muscular exercises are very useful. In Germany it used to be the custom to forbid all exercise, but more good can be done by the systematic training of the muscles. At first the albumin may increase, but it then falls to perhaps less than before. The great improvement, however, is in the heart and the sense of health and strength is restored. He prefers health resorts where there are carbonic acid baths and saline waters for drinking. A most dangerous complication is obesity, which leads to heart failure. It should be treated carefully and slowly reduced. A milk diet is often harmful by inundating the body with too much fluid.

SIR JOHN MOORE, Dublin, pointed out the value of open-air treatment, as the lungs have an eliminatory function. He recommended Sicily as a health resort. Oxygen inhalations are useful, especially in the so-called "uremic asthma." The drowsiness of uremic coma often yields to 20-grain doses of benzoated soda. Urotropin is useful, but must be given with care. Dropsy often acts as an eliminant. The state of the heart is the paramount factor in prognosis. Strychnin and digitalis are useful if the heart is failing. The tendency of digitalis to raise arterial tension may be overcome by giving it with nitrites or iodids. Pilocarpin is a treacherous drug: it may "drown" the patient by the bronchial effusion it induces.

### Treatment of Tuberculous Pleural Effusion and Pneumothorax.

DR. WILLIAM OSLER, Baltimore, spoke on the "Treatment of Tuberculous Pleural Effusion and Pneumothorax." He expressed the opinion that a large majority of all cases of pleurisy with effusion are tuberculous. The following are his reasons: 1. The postmortem examination in cases of sudden death in pleurisy almost always reveals tuberculosis. Even in traumatic pleurisy, tuberculosis is often found. 2. Healed tuberculosis is often found in patients dying from other causes than tuberculosis. 3. Cytologic investigations show the small mononuclear leucocyte almost characteristic of pleurisy. Centrifugalization may reveal the tubercle bacillus. Inoculation is still more important, and has shown it in 59 per cent. 4. There is frequently a tuberculous focus in other parts of the body. 5. In a percentage varying from 25 to 35, the patient subsequently becomes tuberculous. 6. A characteristic tuberculin reaction has been obtained in a large number of cases.

*Treatment.*—For treatment it is best to assume all cases to be tuberculosis. For discussion, he proposed the value of early and repeated aspiration in acute cases. Previously it has been merely an adjunct in treatment. Lately there has been a tendency to tap earlier and not to wait for the fever to subside. In a large number of cases a cure is obtained. In 20 cases treated by him recovery took place in all. In some, aspiration was performed as often as 4 times. Of these cases, 7 were proved to be tuberculous. The removal of the fluid sometimes appears to be directly curative. It prevents the formation of dense adhesions and certainly does no harm. Pneumothorax has followed tapping in a few; but in none of his cases was the pleurisy acute. The chronic cases present the most difficulty. If tapping fails, West's suggestion of incision should be adopted. Drug treatment, blisters and the "thirst cure" have only a limited field of utility. As soon as the fever disappears systematic pulmonary gymnastics should be carried out. Careful after-treatment to establish the general health is important.

The treatment of pneumothorax is very unsatisfactory in consequence of the concurrent pulmonary lesions. In a large number of cases it is best to do nothing. *"Pneumothorax acutissima"* demands immediate operation to convert a valvular into an open pneumothorax. A group of chronic cases demands the operation recommended by West.

DISCUSSION.

DR. G. A. GIBSON, Edinburgh, expressed his difficulty in diagnosing tuberculosis. He believes that in a large number of cases the diplococcus of rheumatism would be found in the urine. He had found tuberculin useful in the treatment of some cases.

MR. STANLEY BOYD, London, thought that in cases of serous fluid, when repeated tapping failed, it would be best to drain the pleural cavity with a fine canula. But he admitted the danger of creating a pyothorax.

DR. SAMUEL WEST did not think that tapping materially influenced the course of the case. He condemned modified Estlander's operation as futile.

### Pathologic Chemistry of Gout.

PROFESSOR VAN NOORDEN spoke on the "Pathologic Chemistry of Gout." He gave a résumé of recent progress and discussed the oxygenation processes, the nitrogen metabolism, the influence of gout on the functions of the stomach and intestines, the peculiarities of the absorption of nitrogenous substances and the condition of uric acid in the urine, blood and tissues. All these pathologic facts have to be combined in a theory, but are far from sufficient to explain the clinical phenomena. He put forward a theory which combines his own, published 12 years ago, and a new one recently published by Murkowski.

*Treatment.*—Food containing excess of purins should be avoided. Alcohol is injurious because it renders the elimination of uric acid difficult and causes retention. Remedies which increase the excretion of uric acid must be given. Various substances were tested. Salicylic acid is apparently the most powerful, but it is a dangerous remedy in gout. Alkalies are utterly useless, though they are excellent in nephrolithiasis. In gout they cause retention of uric acid. The pure alkalies and Vichy and other mineral waters were tested. On the other hand, the increase of the renal excretion of uric acid produced by saline solutions and certain saline springs was very remarkable. The Homburg-Elizabeth spring seemed to be the most powerful. Under it the excretion of uric acid often rose from 25 to 30 per cent. and remained at this height for a considerable period—a confirmation of an old empiric fact. This spring has long been a renowned resort for gout.

*(To be continued.)*

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## ASSOCIATION OF AMERICAN MEDICAL COLLEGES.

*Minutes of the Fourteenth Annual Meeting, held at Atlantic City, N. J., June 6, 1904.*

*(Concluded from Page 513.)*

Dr. P. Richard Taylor moved that the new constitution adopted at New Orleans become operative on July 1, 1907, instead of July 1, 1905. Seconded.

Dr. Means moved that the motion be laid on the table. Carried.

### Committee on President's Address.

Dr. Egbert, on behalf of the committee on president's address, reported as follows:

Your committee recommends that the thanks of the association be tendered to President Guthrie for his most able and

excellent address, and that it be printed and a copy sent to each member of the association. It recommends further, that the various suggestions contained therein be referred to the committee on by-laws, with the request that they give the same due consideration, and report to the association at an early date. (Signed.) WM. H. WATHEN,
SAMUEL C. JAMES.
SENECA EGBERT.

Dr. Means moved that the secretary be authorized to send to each member of the association a copy of the application blank presented as a part of the secretary's report, and that the proper officer shall fill in the necessary data and return the blank to the secretary on or before November 1, 1904.

Seconded and carried.

Dr. H. B. Ward asked for a ruling by the chair with reference to that portion of the report of the special committee on by-laws recommending the expenditure of $400 annually for the visitation of colleges. Whether the adoption of the report was to be considered authority for the expenditure of the money.

The chair ruled that that was the sense of the association, that an appropriation for that amount is to be made.

### Report of Auditing Committee.

The auditing committee, through Dr. Egbert, reported as follows:

Your committee, appointed to examine the report of the secretary-treasurer, beg leave to report that they have audited the financial statement, and find it correct. They also wish to compliment the secretary-treasurer on the fullness of his report, and the important work done by him during the year, and that the association tender him a vote of thanks for his efficient services.

The report was accepted.

Dr. J. A. Dibrell moved that the secretary be authorized to accept resignations from membership. Seconded and carried.

Dr. S. C. James asked what recourse, if any, outside of the law, colleges have to obtain the admission of their graduates to certain territories of the United States from which they are excluded absolutely at the present time. New Mexico bars the graduates of every college in the association, except three. They will not permit the graduates from any institution that gives students conditions to enter their territory to practice medicine.

No information on this point could be given, and the matter was passed.

### Officers Elected.

The nominating committee then reported as follows: President, Samuel C. James, Kansas City, Mo.; first vice-president, R. Dorsey Coale, Washington, D. C.; second vice-president, R. H. Whitehead, Chapel Hill, N. C.; secretary-treasurer, Fred C. Zapffe, 1764 Lexington Street, Chicago; judicial council, Wm. J. Means, 715 North High Street, Columbus, Ohio, chairman, term expires 1907; Parks Ritchie, St. Paul, Minn., term expires 1907; Geo. M. Kober, Washington, D. C., term expires 1906; Thos. H. Hawkins, Denver, Colo., term expires 1905.

Dr. Guthrie introduced the president-elect, Dr. James, who addressed the association in a few well-chosen words, and announced that the next annual meeting would be held Monday, June 5, 1905, at the place of meeting of the American Medical Association.

The association then adjourned.

J. R. GUTHRIE, President.
FRED. C. ZAPFFE, Secretary.

### List of Members.

ARKANSAS.

Arkansas University Medical Department, Little Rock.

CALIFORNIA.

College of Medicine University of Southern California, Los Angeles.
University of California Medical Department, San Francisco.

COLORADO.

Colorado School of Medicine University of Colorado, Boulder.
Denver and Gross College of Medicine, Medical Department of the University of Denver, Denver.

CONNECTICUT.

Yale University Department of Medicine (Yale Medical School), New Haven.

DISTRICT OF COLUMBIA.

Columbian University Department of Medicine, Washington.
Georgetown University School of Medicine, Washington.
Howard University Medical Department, Washington.

ILLINOIS.

American Medical Missionary College, Battle Creek, Mich., and Chicago.
College of Physicians and Surgeons, College of Medicine of the University of Illinois, Chicago.
Illinois Medical College, Chicago.
Northwestern University Medical School, Chicago.
Rush Medical College (in affiliation with University of Chicago), Chicago.

INDIANA.

Fort Wayne College of Medicine, Ft. Wayne.
Central College of Physicians and Surgeons, Indianapolis.
Medical College of Indiana, University of Indianapolis.

IOWA.

Drake University College of Medicine, Des Moines.
College of Medicine University of Iowa, Iowa City.
Keokuk Medical College, College of Physicians and Surgeons, Keokuk.
Sioux City College of Medicine, Sioux City.

KANSAS.

Kansas Medical College, Medical Department of Washburne College, Topeka.
School of Medicine University of Kansas, Lawrence.

KENTUCKY.

Hospital College of Medicine, Louisville.
Kentucky School of Medicine, Louisville.
Kentucky University Medical Department, Louisville.

LOUISIANA.

Flint Medical College, Medical Department New Orleans University, New Orleans.

MARYLAND.

Baltimore Medical College, Baltimore.
College of Physicians and Surgeons, Baltimore.
Johns Hopkins University Medical Department, Baltimore.
University of Maryland School of Medicine, Baltimore.
Woman's Medical College, Baltimore.

MASSACHUSETTS.

College of Physicians and Surgeons, Boston.

MICHIGAN.

Detroit College of Medicine, Detroit.
Michigan College of Medicine and Surgery, Detroit.
University of Michigan Department of Medicine and Surgery, Ann Arbor.

MINNESOTA.

Hamline University College of Medicine, Minneapolis.
College of Medicine and Surgery of the University of Minnesota, Minneapolis.

MISSISSIPPI.

Medical Department University of Misaissippi, Oxford.

MISSOURI.

University of Missouri Department of Medicine, Columbia.
Kansas City Medical College, Kansas City.
University Medical College, Kansas City.
Marion-Sims-Beaumont College of Medicine, Medical Department St. Louis University, St. Louis.
St. Louis College of Physicians and Surgeons, St. Louis.

NEBRASKA.

John A. Creighton Medical College, Medical Department of Creighton University, Omaha.
University of Nebraska College of Medicine, Lincoln and Omaha.

NEW YORK.

University of Buffalo Medical Department, Buffalo.
Syracuse University College of Medicine, Syracuse.

NORTH CAROLINA.

University of North Carolina Medical Department, Raleigh and Chapel Hill.
Wake Forest College School of Medicine, Wake Forest.

OHIO.

Medical College of Ohio, Medical Department University of Cincinnati, Cincinnati.
Miami Medical College, Cincinnati.
Cleveland College of Physicians and Surgeons, Medical Department Ohio.
Wesleyan University, Cleveland.
Western Reserve University Medical College, Cleveland.
Ohio Medical University, Columbus.
Starling Medical College, Columbus.
Toledo Medical College, Toledo.

OREGON.

University of Oregon Medical Department, Portland.
Willamette University Medical Department, Salem.

PENNSYLVANIA.

Medico-Chirurgical College of Philadelphia, Philadelphia.
Woman's Medical College of Pennsylvania, Philadelphia.
Western Pennsylvania Medical College, Medical Department Western University of Pennsylvania.

TENNESSEE.

Meharry Medical College, Medical Department Walden University, Nashville.

VIRGINIA.

University College of Medicine, Richmond, Va.

WEST VIRGINIA.

University of West Virginia Medical Department, Morgantown.

WISCONSIN.

Milwaukee Medical College, Milwaukee, Wis.
Wisconsin College of Physicians and Surgeons, Milwaukee.

## Therapeutics.

**[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in everyday practice. Proper inquiries concerning general formulæ and outlines of treatment are answered in these columns without allusion to inquirer.]**

### Gout.

Satterthwaite, in the *Med. Record*, gives the following method of treating acute gout: Elevate the inflamed part and protect from the weight of the bedclothes by a cradle. Lead and opium wash may be used, applied on absorbent cotton, covered with oil silk, and renewed every four hours. Or, a saturated solution of bicarbonate of soda. Or:

| | | | |
|---|---|---|---|
| R. | Guaiacol | | |
| | Olei gaultheriæ, ää | ℥iv | 15 |
| | Olei olivæ | ℥ii | 60 |

M. Sig.: Apply locally to inflamed part.

Or, a more elegant mixture he believed to be:

| | | | |
|---|---|---|---|
| R. | Menthol | ʒi | 30 |
| | Alcoholis | ℥iv | 120 |
| | Glycerini | | |
| | Aquæ laurocerasi, ää | ʒi | 30 |

M. Sig.: Apply locally to the inflamed part.

The patient may be placed in a tub at 98 to 100 F., kept there for fifteen minutes, douched with water at 102 F. for another fifteen minutes. Afterward the flabby parts are massaged and the inflamed parts are left untouched. Administer a mercurial purge, followed by a saline cathartic. The wine of colchicum should be given in from 15 to 20 minum doses every four hours. The dose should be lessened as soon as possible because of the disturbance of the gastrointestinal tract, which follows large doses or the prolonged use of the drug. Sodium salicylate or salicylic acid should alternate with the colchicum every four hours. If the salicylates are not well borne he suggests the citrate of potassium in 30 to 60 grain doses every four hours.

Following the mercurial purge he suggests a cholagogue, and his favorite is:

| | | | |
|---|---|---|---|
| R. | Resin. podophyllin | gr. ss | 03 |
| | Ext. colocynth | | |
| | Ext. hyoscyami, ää | gr. i | 06 |
| | Ext. nucis vom. | gr. ss | 03 |

M. Ft. pil. No. i. Sig.: One at night if necessary.

For drinking purposes he recommends the waters containing carbonate of lime, of soda, of potash, and lithia. The diet during the acute stage should be, with the exception of toast and butter, a liquid diet. The treatment of the other and more chronic forms of gout consists chiefly in the free use of water, the free evacuations from the bowels, the administration of the iodids and to abort an attack the use of colchicum, the salicylates or the alkaline carbonates. The author believes that the patient does better on a dietary of food that he has found to be suitable by personal experience rather than the usual dietary recommended.

Luff, in the *London Practitioner*, treats at length on the subject of diet in gouty states. He concludes that no routine method can be adopted which is suitable to all cases, but that consideration should be taken of the nutritional conditions of the patient, habits, environs, likes and dislikes, and, as Pawlow has shown that a habit of digesting with ease certain kinds of food is acquired by the stomach, which learns to secrete a gastric juice appropriate to it, for this reason certain changes of food may interfere materially with the function of the digestive apparatus. A further conclusion is that foodstuffs must be used which are not only readily utilized in the system, but must be readily attacked by the gastric juices, therefore the simplicity of meals is more important than the exclusion of certain articles of diet.

The following is the diet recommended by Dr. Luff for his gouty patients:

Morning: One-half to one pint of hot water, flavored with a bit of lemon peel, taken slowly immediately on rising.

Breakfast: A selection may be made from the following articles of diet: Porridge and milk, whiting, sole, or plaice, fat bacon (grilled), eggs cooked in various ways (never hard boiled), dry toast, or zweiback bread thinly buttered and tea infused for three minutes and strained.

Lunch and dinner: Vegetable purées, soups made by boiling beef or mutton bones with vegetables and subsequently removing the fat. The soups should not be thickened with the farinaceous substances. The varieties of fish most suitable are whiting, sole, turbot, plaice, smelt, flounder, gray mullet and fresh haddock. The birds that are admissible as articles of diet are chicken, pheasant, turkey and game (not high). Beef, mutton and lamb should be taken at only one meal a day, and then in very moderate quantity. Two vegetables may be taken at both lunch and dinner, spinach, Brussels sprouts, French beans, winter cabbage, turnip tops, turnips and celery. Potatoes may be taken in moderate quantities. Stewed fruits, or baked apples, or pears may be taken every day at one meal. Green vegetables, as salads, without oily dressings may be allowed. A simple savory may be taken at the end of dinner, or a small quantity of cheese, if well masticated and free from molds.

Night: Half to one pint of hot water flavored with lemon peel should be slowly sipped before retiring.

### Intestinal Colic.

*Merck's Archives* recommends the following:

| | | | |
|---|---|---|---|
| R. | Spiritus chloroformi | ℥ii | 60 |
| | Tincturæ belladonnæ | ♏iiss | 10 |
| | Dionin | gr. v | 30 |
| | Tincturæ cardamon co. q. s. ad | ℥iv | 120 |

M. Sig.: Teaspoonful in water every half hour for adults.

### Metrorrhagia from Fibroma.

Huchard, in the *Med. Press*, discusses some of the points in the treatment of this condition from a medical standpoint before operative treatment is feasible.

Hot irrigations with pure boiled water at 113 F., using from three to five quarts, repeated twice or three times daily. Compresses of salt water are also to be used. A towel steeped in cold salt water (9 oz. to a quart of water) is applied to the

abdomen and covered with a thick layer of wadding, with oiled silk or gutta-percha leaf over all. The compress should be kept on at first two hours, gradually increasing the time until it can be borne a whole night. The treatment lasts one month and is renewed three or four times a year.

For medicinal use he recommends the following:

| | | |
|---|---|---|
| B. Ext. hydrastis canadensis fl. | ℥i | 30 |
| Ergotin | ℥i | 4 |

M. Sig.: Twenty drops three or four times a day; or:

| | | |
|---|---|---|
| B. Hydrastininæ hydrochloratis | gr. x | 65 |
| Aquæ dest. | ℥iiss | 10 |

M. Sig.: Inject one syringe (gr. i) two or three days in succession; or:

| | | |
|---|---|---|
| B. Quinin hydrobromatis | gr. ii | 12 |
| Hydrastininæ hydrochloratis | gr. ss | 03 |
| Ergotin | gr. i | 06 |

M. Ft. pil. No. i. Sig.: Two such pills daily.

These pills can be prescribed for ten days. The ten following days recourse can be had to cannabis indica or adrenalin. The latter has frequently succeeded—ten drops of the 1 to 1,000 solution morning and evening. Sometimes accidents occur: sensation of anguish and cardiac arrhythmia. The treatment should be carefully watched and suspended on the slightest unfavorable symptom.

### Intestinal Fermentation and Diarrhœa.

Dr. Friedrich Grosse, in a communication, gives the following as his favorite prescription for this condition:

| | | |
|---|---|---|
| B. Bismuthi salicylatis | | |
| Benzonaphthol | | |
| Sodii benzoatis, āā | gr. xlv-lx | 3.-4 |
| Syrupi simplici | ℥v | 20 |
| Aquæ q. s. ad | ℥iv | 120 |

M. Sig.: One teaspoonful every three to four hours.

In case of diarrhea add or substitute tannigen 3ii (8 grams) for the benzonaphthol in the above prescription.

### Coryza.

Hirtz, in *Le Mois Therapeutique*, recommends the following dusting powder in the treatment of coryza:

| | | |
|---|---|---|
| B. Quinin sulphatis | | |
| Bismuthi salicylatis, āā | gr. viii | 50 |
| Acidi borici | gr. xv | 1 |
| Amyli | ℥iiss | 10 |

M. Sig. Use as insufflation in nose three times daily.

### Subacute Gastritis.

Wood, in the *Therapeutic Review*, discusses the treatment of this condition under the following three heads:

*Habits.*—Regularity in the time of eating, thorough mastication. The value of chewing the food depends not solely on the mechanical subdivision of the mass, but also on the complete ensalivation. Salivary digestion in the stomach plays a part hardly secondary to that of peptic digestion.

*Water.*—Water should be avoided during meal time as much as possible; it dilutes the digestive secretions, and enables the food to be swallowed without sufficient mastication.

*Diet.*—Of the starchy foods those that, like toast, stale or pulled bread, require considerable mastication are to be preferred. Sugar and fats are best reduced to a minimum. Of the albuminous foods, well-cooked mutton or beef or the fish foods, such as rock fish and oysters, are generally permissible. Pork, veal and rich game foods should be avoided.

*Drugs.*—Stimulation is closely allied to irritation, and where there is a true inflammatory condition the stimulant remedies are always contraindicated, such as bitter tonics and stimulating aromatics. In cases where there is a marked failure of the hydrochloric acid this drug may be given both on account of its action as a digestant and its antiseptic action.

Perhaps even more efficient is the nitrohydrochloric acid, which should be prescribed undiluted, since it rapidly deteriorates after dilution. Of this, five drops may be given in a half tumbler of water after meals. Of the artificial digestants, such as pepsin, pancreatin and the various vegetable ferments, the best that can be said of them is that they are comparatively harmless.

The one drug which has proved of most value in the writer's experience in the treatment of these cases is the bicarbonate of soda. It neutralizes the lactic acid when present, thus relieving the distressing pyrosis; it enables the salivary ferment to act by rendering the gastric contents alkaline, and, finally, it has been most abundantly proven to be one of the most effective stimulants of the secretion of hydrochoric acid. It is best given before meals. The following prescription has given the author good results where there is much irritation:

| | | |
|---|---|---|
| B. Bismuthi subnitratis | ℥i | 4 |
| Sodii bicarb. | ℥iii | 12 |
| Acidi carbolici | gr. xv | 1 |
| Spiritus menth. pip. | m. xx | 1 30 |
| Mucilag. acaciæ q. s. ad | ℥ii | 60 |

M. Ft. emulsio. Sig.: Teaspoonful before each meal.

### Acute Rheumatism.

A. Martinet, in *Nouveaux Remèdes*, states that a combination of antipyrin and sodium salicylate is remarkably efficacious in this disease. On account of the pasty mass it is impossible to dispense in capsules, and, moreover, the combination is irritating to the stomach. The following is the formula:

| | | |
|---|---|---|
| B. Antipyrini | gr. lxxv | 5 |
| Sodii bicarbonatis | ℥iss | 6 |
| Sodii salicylatis | | |
| Aquæ dest. āā | ℥iiss | 10 |
| Rum | ℥i | 30 |
| Syrupi aurantii cort. | ℥v | 150 |

M. Sig.: A tablespoonful as required.

## Medicolegal.

**Liability Between Towns in Contagious Disease Cases.**—The Supreme Judicial Court of Maine holds, in the case of the Inhibitants of Machias vs. the Inhabitants of Wesley, that the right of towns to recover expenses incurred in cases of contagious diseases is governed by statute. The fact that the statute gives to the overseers of the poor of the oldest incorporated adjoining town the care of persons found needing relief in unincorporated places does not make such adjoining town liable to reimburse another town for the expenses incured in relieving such destitute person. The result is the same if the expenses were incurred by the local board of health.

**Woman's Charge to Physician Against Man Not Privileged.**—The First Appellate Division of the Supreme Court of New York says, in the case of People vs. Abrahams, where it was sought to fix the paternity of a child born on the 15th of May, that a practicing physician with whom the mother had a consultation in the preceding September or October was asked, "In that conversation, did she make any charge against any person as being the cause of her condition at that time?" This was objected to and the objection sustained. It was sought to sustain the ruling on the ground that the answer was not admissible under section 834 of the New York Code of Civil Procedure which provides "A person duly authorized to practice physic or surgery . . . shall not be allowed to disclose any information which he acquired . . . in a professional capacity and which was necessary to enable him to act in that capacity." The testimony here sought to be elicited was not information acquired by the physician which was necessary to enable him to act as such. It needs no argument to demonstrate such fact, and its exclusion may have done great injustice to the accused. He testified that he never met the mother until the 15th of October. The question called for a statement made by her in September or October, and if she stated to the physician at that time that some other person than the accused was the cause of her condition it was possible that the court would have reached a different conclusion than it did, adjudging the accused to be the father of the child. In any event, the testimony was admissible, and for the error committed in excluding it a new trial must be had.

**Expert Evidence on Physical Ability to Commit Crime.**—The Supreme Court of Alabama says that it understood certain questions asked a physician in the homicide case of Dixon vs. State to call for the professional opinion of the witness whether

a person suffering from malaria with bilious complications, and in a high fever late in the afternoon, could walk twelve miles and go through the ordeal of killing a man overnight, and be free from fever and of normal pulse early the next morning. This was, of course, a matter for expert opinion. Neither the jury nor the court could know what effect the physical exertion of walking so great a distance and the mental excitement incident to doing murder would have on a man in the accused's condition. A physician would know whether such conduct on the part of the accused would likely aggravate his fever overnight. Assuming an opinion that it would, the fact that the accused had no fever the next morning, taken in connection with the opinion, would be a pertinent circumstance tending to show that the accused had not gone to the victim Gordon's house and killed him. It was the same legal question as if it had been shown that the accused was desperately ill on the eve of the homicide—in the last stages of consumption, for instance—and his physician's opinion had been that he could not have gone to Gordon's, killed him, returned, and himself survived the night, and that he was alive the next day. Or, for further illustration, the question stood on the same legal footing as if it had been shown that the accused was critically ill and in a very weak and helpless state, and the physician's opinion as to whether he could have walked to and from Gordon's house at all; and it seems clear to the court that such expert opinion in either of the cases stated would have been competent. Therefore, it concludes that the Circuit Court erred in sustaining objections to the question calling for the expert opinion of the physician to the effect that the condition of the accused on Sunday afternoon was such that he could not have walked to Gordon's that night and killed him and return to the place where he was stopping and been in the physical condition he was found to be in at 8 o'clock the next morning.

**Court Bound by Physicians' Certificates of Sanity.**—The Supreme Court of Michigan says that in the case of Grinky vs. Durfee, Judge of Probate, the former petitioned the latter for an order admitting his wife, Celia Grinky, to an insane asylum. At the time set for hearing the judge refused to proceed with the same, because two reputable physicians, appointed by him to examine said Celia Grinky, had reported that she was not insane. (One of these reports was not in precise statutory form, but, as it could not be considered a certificate of insanity, its informal character, the court says, was in its opinion immaterial.) Mandamus proceedings were then instituted to compel the judge to proceed to a hearing on said petition; an order to show cause was issued, a hearing in the mandamus case had, and the writ denied. In affirming that decision the Supreme Court says that its correctness depended on the construction and effect of Act No. 217 of the Public Acts of Michigan of 1903. Section 16 of that act made it the duty of the probate judge, on the filing of Grinky's petition, "to fix a date for the hearing thereof" and "appoint two reputable physicians to make the required examination of the alleged insane person, whose certificate shall be filed with the court on or before such hearing." Section 14 of said act provides: "No person who is a resident of this state shall be held as a public or private patient in any asylum, public or private, or in any institution, home or retreat for the care or treatment of the insane, except on certificates of insanity and an order for admission, as hereinafter provided." Section 15 provides: "Certificates of insanity must be made by two reputable physicians, under oath, appointed by the probate court of the county where such alleged insane person resides, or is an inhabitant, to conduct the examination." Continuing, the Supreme Court says that it was urged that, notwithstanding the language above quoted, section 16 of the act makes it the duty of the judge of probate, even though the physicians appointed by him certify to sanity, to himself determine that question. The court can not assent to this construction. Under such circumstances a finding of insanity by the probate judge would be a mere idle formality, for without the physicians' certificate of insanity the patient could not be held by the asylum authorities. The language of section 16 does not indicate the legislative intent to compel the probate court to make an adjudication which would be altogether meaningless. On the contrary, the language in that section, above quoted, requiring the certificate "to be filed with the court on or before such hearing," and the fact that the form of the order therein set forth shall contain a recital of the "filing the certificates of two legally-qualified physicians," indicates to the court that the legislature intended that the probate judge should not proceed when said physicians certify to sanity. Nor does the court consider the statute so construed unconstitutional on the ground that the authority of the probate court to make an order for the admission of an alleged insane person to an asylum can not constitutionally be made to depend on a certificate made by nonjudicial persons. It thinks that the most that can be said of such an objection is that the legislature has prescribed a certain rule of evidence, viz., it prohibited the making of the order in question unless a certain kind of proof is adduced. The authority of the legislature to prescribe this rule might be denied if it deprived any person of a vested right. The rule in question certainly does not deprive the alleged insane person of a vested right, for it tends to safeguard her rights. It deprives no one else of a vested right, because it can not be conceived that any one has a vested right to have another committed to an insane asylum. Neither does the court agree with the contention that the legislation in question confers on keepers of asylums judicial powers because it prohibits their holding a patient "except on certificates of insanity and an order for admission."

## Current Medical Literature.

### AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

**American Medicine, Philadelphia.**

*August 6.*

1 Recognition and Treatment of Chronic Myocardial Disease. A. A. Stevens.
2 Enlargements of the Liver. J. N. Hall.
3 *Splenohepatic Fibrosis with a Remarkable Leucocytosis. B. K. Fletcher and S. W. Sappington.
4 *Pathology of Frambesia. P. G. Woolley.
5 Subcapsular Nephrectomy for Pyonephrosis: Report of Case and Exhibition of Specimen. John DeVinne Singley.
6 Surgical Aspect of a Case of Jacksonian Epilepsy. G. Childs Macdonald.
7 Treatment of Chronic Internal Hydrocephalus by Lumbar Puncture. H. Lowenburg.

**3. Splenohepatic Fibrosis with a Remarkable Leucocytosis.**—The authors report a case of splenohepatic fibrosis in which it was impossible to make a diagnosis owing to the absence of symptoms distinctive of either group. The patient, a woman, aged 71, had been ill for ten years. The left side of the abdomen began to "fill up" about eighteen months before she sought medical advice. The patient also noted a swelling on the right side, but this did not attract her attention as much as that on the left side. The abdomen was slightly tender to touch, and the patient complained of a dragging in the lumbar region and a sense of weight and fullness in the abdomen. On examination, the spleen was traced from the edge of the riba on the left side downward 9 cm. below the level of the umbilicus in the mid-clavicular line. The tumor was hard and smooth, with a sharp edge. The splenic dullness began at about the eighth rib in the mid-axillary line. On the right side the liver extended almost as far as the level of the umbilicus. The liver flatness began at the fifth interspace. The organ was firm and smooth. The blood count showed the following: Hemoglobin, 48 per cent.; red cells, 4,100,000; white cells, 136,000. The latter consisted of the following varieties: Polymorphonuclear neutrophiles, 89.2; small mononuclears, 1.7; large mononuclears, 2.8; eosinophiles, 1.4; basophiles, .3; neutrophilic myelocytes, 4.5; eosinophilic myelocytes, 0.1. There was slight poikilocytosis, slight evidence of polychromatophilia, and only a few normoblasts. The last blood count, made one month later, showed a marked decrease in both red and white cells and an increase in the polymorphonuclear cells, the others remaining about the same. A microscopic examination of the spleen, liver and kidneys showed a diffuse increase of connective tissue. The other organs were normal, or only slightly

involved. Many arteries throughout the body showed the most extreme degree of sclerosis and calcareous change. The authors feel that this is a case in which they can not name the cause nor say that the primary lesion was in the spleen any more than it was in the liver. The name given to the disease was used simply to indicate the organs clinically and pathologically prominent, and to suggest the variety of morbid change present. They offer no explanation for the marked leucocytosis in the absence of any complications.

4. **Pathology of Frambesia.**—Woolley describes the microscopic appearance of a nodule taken from a case of frambesia. There was a marked hyperplastic acanthosis, with a round-celled infiltration of the underlying, and especially of the perivascular connective tissues. There was some semblance of epithelioma, but the acanthus layer of the skin was thickened and prolonged in strands and columns of bizarre shapes. In many places in this hyperplastic epithelium there were larger or smaller islands of connective tissue, each apparently representing the path of the blood pressure. In the centers of such areas and about the vessel were collections of small round cells and plasma cells. But this small-celled infiltration was most marked in the larger strands of the submalpighian connective tissue. Within these areas there were occasional leucocytes and fibroblasts in varying stages of development. A number of plasma cells were present within the round-cell accumulation. At the site of the ulceration the structure of the lesion was modified by the destructive process. All the layers were invaded by a multitude of polymorphonuclear leucocytes, the blood vessels were widely dilated, and there was a certain amount of superficial degeneration. There was no distortion of the arrangement of the layers of the skin. In many parts of the section a peculiar appearance was noted, suggesting the overlapping scales of the fish. This was apparently due to the fact that certain of the acanthus cells took a more intense stain on one side, in which the nucleus did not participate. There were no giant cells, no tubercle bacilli, no lepra bacilli, and no evidence of cell inclusions.

### Medical Record, New York.

*August 6.*

8 *Rectal Constipation in Women. Grace Peckham Murray.
9 *Hypodermic Injection of Strychnin Nitrate in the Treatment of Progressive Muscular Atrophy. Sanger Brown.
10 The Clinical Features of the Epidemic of Dysentery at Tuckahoe, N. Y., During the Summer of 1902. Oliver L. Austin.
11 Use of Merlin Spark Gaps for X-ray Work. L. Weiss.
12 New Operation for Tyothorax. Spencer Graves.
13 Case of Foreign Body Remaining in the Lens of the Eye for Six Years with the Lens Otherwise Clear. Frank N. Lewis.
14 Case of Chronic Fibrinous Bronchitis, with Special Reference to the Treatment of This Disease. W. Moser.
15 Fibrils and Ganglion Cells. V. Biart.

8. **Rectal Constipation in Women.**—Although this subject is one of the greatest importance, Murray believes that it is the least understood and is given the least study. It is a question which involves the understanding of diet, of occupation, of chemistry, as well as the whole process of assimilation; of the mechanical obstructions and inflammatory conditions of the intestinal canal and adjacent structures and the nervous reflex and psychic influences which are more easily recognized in this part of the human system than anywhere else. Women are most subject to constipation, especially rectal constipation. This may be, but is rarely, due to a nervous condition. While it may occur as the result of inflammatory conditions, such as hemorrhoids, fistulæ and fissures, in very many cases it is mechanical in its origin by reason of the peculiar anatomy of the parts. Anteversions, retrodisplacements, neoplasms and periuterine inflammations obstruct the bowel. A form of rectal constipation which heretofore has received but little recognition is that which occasions and is the result of the pulling down of the rectovaginal septum, thereby forming a pouch constantly increasing in size, changing the direction of the intra-abdominal rectal pressure to that of the vaginal, which is at right angles to it, and making it difficult for the rectal sphincters to relax so as to void the contents of the bowel. The retention of fecal matter causes rectal irritation and auto-intoxication. In regard to treatment, cathartics may be useful in those cases in which the obstruction is due to inflamed and displaced organs or neoplasms, but would be useless in cases where there has been a displacement of the rectovaginal wall. In such cases, glycerin or gluten suppositories or injections of small amounts of olive oil, glycerin or soothing fluids may be employed. The use of daily enemata, as ordinarily practiced, is to be reprehended, from every point of view. The use of bougies or dilators may prove beneficial. For constipation of purely rectal origin, massage, electricity and measures designed to improve peristaltic action are of no avail. The olive oil enemata are especially beneficial. The patient, on retiring, injects into the rectum the amount of olive oil which can be retained easily during the night. The amount varies greatly with different individuals, and with practice one can usually begin with half a cup full, and after a little can retain two-thirds or even one cup full. The oil is very soothing to the rectum and allays the irritation which has been occasioned by retained feces. It is especially beneficial to those who are thin. The directions are to take the injections nightly for three weeks, and then every other night for three weeks, and then less often, gradually discontinuing them as may be necessary.

9. **Strychnin Nitrate in Progressive Muscular Atrophy.**—Brown says that although the hypodermic injection of strychnin nitrate in the treatment of progressive muscular atrophy has fallen short of his expectations, yet it has gone a long way to dissipate the horrible sense of depression, discouragement or even despair, which the prognostic contemplation of these cases hitherto aroused. For an adult the dose should be 1/25 gr. once daily for six weeks, resumed after an intermission of two weeks, and so on until several courses have been taken. Though many patients can bear a larger dose without exhibiting unpleasant symptoms, the results following its use are not so good as when a small dose is given. Possibly, a certain amount of the drug might act as a tonic and restorative to the degenerating neurons, while more might accelerate the process of decay. No other form of strychnin than the nitrate given hypodermically, and no form whatever, not even the nitrate itself, given by mouth, can influence the course of the disease favorably. The value of hygienic measures, and the judicious use of electricity, massage and gymnastics, is rather enhanced than otherwise when used in conjunction with the strychnin treatment.

### Boston Medical and Surgical Journal.

*August 4.*

16 *Operations on Benign Diseases of the Stomach. F. B. Lund, E. P. Joslin and F. T. Murphy.
17 The Union of the Teachings in Cystoscopy and Microscopy. Frank M. Johnson.

16. **Operations on Benign Diseases of the Stomach.**—The authors review the surgery of benign diseases of the stomach at the Boston City Hospital and the Massachusetts General Hospital during the last six years. They report a series of operations for chronic gastric ulcer, pyloric obstruction and acute gastric dilatation, perforation of gastric ulcer and gastric hemorrhage. Surgical intervention in gastric hemorrhage should be considered even before it is urgent, and the physician, with the surgeon, should watch the course of the patient. Operations on females under 30 years of age should be advised most conservatively, since death under medical treatment is rare. Time should not be lost during an operation in seeking the bleeding point, but gastroenterostomy should be performed. The mortality in operations for perforation of the stomach is dependent chiefly on the length of time intervening between perforation and operation and the virulence of the infection. Patients with chronic ulcers of the stomach or strictures of the pylorus should be watched jointly by the physician and surgeon. Postponement of operation after it is indicated is dangerous, owing to the possibility of hemorrhage, perforation and exhaustion. Many conditions must be taken into consideration when estimating the final results in the cases reported. First, the method used; second, the operator; third, the time of operation, and, fourth, the nature of the case. Doubtless the next six years will show a remarkable improvement in this branch of surgery as compared with the results of the past six years. In many instances the technic has been faulty, owing largely to the inexperience of the operator. Med-

ical clinicians are learning to differentiate those cases which are amenable to surgical treatment while there is yet time and opportunity for surgical aid. Modern surgical technic, and in particular posterior gastroenterostomy by the method of Moynihan, and the gastroduodenostomy of Finney, have shortened the convalescence and improved the final results in gastric surgery. Of the 21 cases of pyloric obstruction operated on, 5 died, 9 are well, 3 were relieved, 2 required secondary operation, and 4 were not benefited. Of the 21 cases of chronic ulcer, 5 died, 7 are well, 4 were relieved, 8 required secondary operation, and 5 were not relieved. Hemorrhage—Ten cases; 10 deaths. Perforation—Eighteen cases; 13 deaths, 5 recoveries, and 2 cases required secondary operations. Acute dilatation —One case; 1 death.

### New York Medical Journal.

*August 6.*

18 **The Pathogenesis of the Aneurismata of the Aorta.** Fritz Schwyzer.
19 *The Best Method of Operating to Effect a Radical Cure of Senile Hypertrophy of the Prostate Gland. (To be continued.) Orville Horwitz.
20 *The Indications for and the Technic of Prostatectomy. G. Frank Lydston.
21 Appendicitis Associated with Disease of the Tubes and Ovaries. H. C. Coe.
22 *Placenta Previa Centralis. A. A. Moore.

**19. Senile Hypertrophy of the Prostate.**—As the result of a study of 150 radical operations for the cure of senile hypertrophy of the prostate gland, Horwitz concludes that a Bottini operation or a prostatectomy performed as soon as the symptoms of obstruction begin to appear offers the individual a better chance for help, comfort and prolongation of life than the unfortunate patient who leads a catheter life. Experience proves that patients of the latter class even usually succumb to one or the other sequelæ attendant on this method of treatment. The author advocates early operations in both private and hospital practice, and reproaches himself for being, at times, too conservative by delaying surgical intervention. He urges on the profession the importance of having a surgeon supervise these cases of prostatic hypertrophy in conference with the attending physician as soon as it is deemed necessary to resort to catheterism. By adhering to this rule, cases that will ultimately require an operation will be recognized early and permanently relieved, with comparatively little risk. If this suggestion were followed, the mortality attendant on radical operations would drop to a very low percentage, and so-called "palliative" operations would seldom be resorted to. The Bottini operation often is condemned by an individual whose experience is limited to a few operations, possibly in cases the majority of which may not have been suitable for such an operation. And a certain procedure is advocated, based on the report of a few successful cases. Such expressions of opinion are valueless, as reliable statistics can only be obtained by the study of the results in a large number of cases. Furthermore, no effort is made by writers to classify their cases according to age, character of the growth, condition of the patient or length of time that he has suffered; all these conditions have a direct bearing on the proper methods of treatment, the results which follow the operation, as well as the question of mortality. Of all the radical methods that have been suggested for dealing with enlargement of the prostate gland, but two have stood the test of experience—prostatotomy by means of the galvanocautery (the Bottini operation) and prostatectomy.

20.—See abstract in THE JOURNAL, xli, p. 1106.

**22. Placenta Previa Centralis.**—Moore reports a case of placenta previa centralis in which there were very copious hemorrhages, followed by collapse. It was impossible to find the edge of the placenta, so that it was deemed expedient to introduce the hand directly through the placental tissue, this, in the author's opinion, being less likely to produce violent hemorrhage during the ensuing manipulations than if the placenta were stripped from the uterine wall. Podalic version was performed, the placenta was delivered manually, Credé's method proving ineffectual. The child was dead. The patient was given a hot mercury bichlorid intrauterine douche, 1 to 10,000, at a temperature of 112 F. One-half a dram of fluid extract of ergot was given hypodermically, and this was continued three times on the following day and twice on the next. On the third day the patient's temperature was normal, and continued so until the eighth day, when the patient was discharged from the hospital. Moore believes that the fetus had died one or two days before its delivery, as there was a minus quantity of the normal mucus in the mouth and throat, and in efforts at insufflation by the mouth there was no mucus blown out of the nose.

### Medical News, New York.

*August 6.*

23 **Conservatism in Otology.** Gorham Bacon.
24 Intrahepatic Cholelithiasis. (Continued.) Edwin Beer.
25 *Observations on Dilatation of the Stomach and on Gastroptosis. Robert Coleman Kemp.
26 *Experiments to Determine the Value of Collargolum and Antistreptococcic Serum in Infected Wounds of the Eye. J. H. Claiborne and E. B. Coburn.
27 Puerperal Sepsis. Swithin Chandler.
28 Vaccination and the Law. Nelson G. Richmond.
29 Dipsomania and Its Treatment. William Lee Howard.

**25. Gastroptosis.**—Kemp details the result of a series of observations made on cases of gastrointestinal diseases in two New York hospitals. He calls attention to the unfortunate fact that too often physicians depend on the examination of the stomach contents alone for a diagnosis of gastroptosis, and neglect the investigation of the motor functions and position of the stomach. A prolapse of the stomach may exist without discoverable nephroptosis, and often with no enteroptosis that is detectable by the ordinary means of physical diagnosis. As long as the functions of the organ are normal, we can not regard the conditions met with as pathologic. He discusses atonia gastrica, dilatation of the stomach and gastroptosis, the general treatment of the latter being summed up as follows: 1. Correction of the derangement of the stomach by appropriate diet and medication suited to each case. 2. Regulation of the bowels. 3. Mechanical support to increase the intra-abdominal tension, such as (a) silk abdominal supporters, (b) bandaging, as by the Van Valzah-Hayes method, (c) Gallant's corset, (d) Rose's adhesive plaster belt—the best of the three, as it can not slip and become displaced. He prefers, however, rubber plaster on moleskin, as it is looser in texture and the sweat readily evaporates through it. It can be worn longer and with practically no irritation. It is superior to the ordinary rubber adhesive and even to the zinc oxid plaster. Dr. Rose's belt is the best to fulfill the indications. The paper closes with a description of the various methods that may be employed for locating the position of the stomach.

**26. Collargolum and Antistreptococcic Serum in Eye Infections.**—According to the authors 7½ per cent. of the blind are made so by injuries to the eye and the ineffectiveness of modern methods of treatment. This has led them to conduct experiments with collargolum and antistreptococcic serum with the view of determining their efficiency in the treatment of infected wounds of the eye. Collargolum is an allotropic form of silver (colloidal silver), which is soluble in water in the proportion of 1 to 25, forming a brownish solution. It has some direct bactericidal action and produces a marked and rapid leucocytosis, but is ineffectual in preventing the spread of purulent processes in the eyes of rabbits, whether used intravenously or by injection into Tenon's capsule. It has, however, been used with considerable success in septicemia and pyemia, surgical infections, puerperal sepsis, sepsis of infectious diseases, skin diseases, venereal diseases and certain muscle diseases, including rheumatism, abscesses, cellulitis, etc., when injected intravenously in a 1 per cent. solution. It has also been used successfully by inunction in the form of Credé's ointment in the treatment of eye diseases. In the experiments a 2 per cent. solution of collargolum was injected; in one series of animals into the veins, and in another series into the capsule of Tenon. Twenty-five minims of the solution were injected into the veins on successive days, but the inflammatory conditions increased. The same was true of the second series, that in which the injection was made directly into the capsule of Tenon. In still another series collargolum in 100 minim doses of the 2 per cent. solution, was injected intravenously. The results were the same as in the other

series. In another set of experiments antistreptococcus serum was injected intravenously in quantities varying from 5 to 10 c.c. The injection of the serum into the capsule of Tenon also was ineffectual. Antistreptococcus serum does not appear to exercise any favorable influence on purulent processes in rabbit's eyes, but there is no good reason why serum treatment should not be tried in all forms of purulent eye diseases, inasmuch as it has been found successful in the treatment not only of pure streptococcus infection, but also of such infections mixed with staphylococci. The use of antistreptococcus serum, being harmless, may be of benefit even though selective in its action. In certain experiments it has been shown that the doses of serum must be increased enormously the longer the treatment is begun after the primary infection. The authors recommend the exercise of considerable care in its use, as death is likely to follow from air embolism, as was the case in one of their experiments.

### Cincinnati Lancet-Clinic.

*August 6.*

30 Résumé of the Clinical Results on the Newer Methods of Diagnosis in Surgical Diseases of the Kidneys. Wm. E. Lower.
31 A Case of Tumor of the Brain; Operation; Recovery. H. J. Whitacre.
32 Surgical Treatment of Minor Injuries. W. N. Bradford.
33 Man in the Divorce Court. E. S. McKee.

### St. Louis Medical Review.

*July 29.*

34 Chronic Infective Arthritis Simulating Chronic Polyarticular Rheumatism Due to Chronic Abscess in Connection with a Tooth. J. R. Clemens.

### Richmond Journal of Practice.

*June.*

35 *Modification of Cow's Milk for Feeding in Early Infancy. McGuire Newton.

**35. Modification of Milk for Infant Feeding.**—To those who live in large cities, says Newton, the modification of milk is an easy task; but for those who have not the advantage of a milk laboratory, and who, consequently, have to resort to the home modification, there are many difficulties, and these are often sufficient to prevent an intelligent attempt to prepare a proper food mixture. A number of set formulæ may be used, but that based on an analysis made for winter is the simplest and will be of much service in overcoming the difficulties connected with the modification of milk. The formula is as follows:

| Infant's Age. | Table 1. Percentage of Fat. | Percentage of Sugar.* | Percentage of Proteid. | Table 2. Quantity of "top milk" from a vessel containing a quart (in ounces). | Milk Sugar (in teaspoonfuls). | Lime Water (in ounces). | Boiled Water (in ounces). | Table 3. Number of Feedings. | Amount of each Feeding (in ounces). |
|---|---|---|---|---|---|---|---|---|---|
| 1-3 day | 2 | 7 | 0.25 | 1 | 3.5 | 1.5 | 9 | 10 | .5-1 |
| 4-7 day | 2.5 | 7 | 0.33 | 1.5 | 4 | 2 | 10.5 | 10 | 1-1.25 |
| 2d week | 3 | 7 | 0.50 | 2.25 | 4 | 2 | 10 | 10 | 1.5 |
| 3d week | 3.5 | 7 | 0.75 | 6 | 7 | 4 | 18 | 10 | 1.5-2.5 |
| 2d month | 4 | 7 | 1 | 9 | 8 | 4 | 19 | 9 | 2.5-3 |
| 3d month | 4 | 7 | 1.25 | 11 | 7.5 | 4 | 17 | 8 | 3-4 |
| 4th month | 4 | 7 | 1.50 | 13 | 7 | 4 | 15 | 7 | 4.5-5 |
| 5-6 month | 4 | 7 | 1.75 | 15 | 6.5 | 4 | 13 | 6 | 5.5-6.5 |
| 7-9 month | 4 | 6.5 | 2 | 17 | 5.5 | 4 | 11 | 6 | 6.5-7.5 |
| 10-11 month | 4 | 6 | 2.50 | 21 | 4.5 | 4 | 7 | 5 | 8 -9 |
| 12 month | 4 | 5.5 | 3 | 25 | 3 | 4 | 3 | 5 | 9 -10 |

In the first table will be found the proper proportions in which the constituents should occur at the various ages. In the second table are found the quantities of "top milk" sugar, lime water and sterile water necessary to prepare proper mixtures, and in the third table are found the number of daily feedings and the quantity of each for various ages. To prepare food mixtures according to this table, it is necessary to have a quart of milk which has stood long enough for the cream to rise, and from which the desired quantity is to be taken by means of a dipper or siphon made for the purpose. The formula is simple and accurate, and when the table is followed closely mistakes are much less liable to occur than with a more complex method. Certain indications demand special modification of the milk, such as a slow gain in weight with no digestive disturbance, indicating a deficiency in all the ingredients, especially the sugar. Thin, green, acid stools, with or without colic, indicate an excess of sugar. Constipation, with dry, hard stools, indicates a deficiency in fat. Excess of fat will cause vomiting or regurgitation of small quantities of food one or two hours after feeding, or frequent, apparently normal, bowel movements. The presence of curds in the stool, with or without colic, points to an excess of proteids. These indications are to be met by the use of formulæ in which the disturbing elements are altered in response to the demands of the case.

### The Laryngoscope, St. Louis.

*July.*

36 Reflex Neuroses of Nasal Origin. G. Hudson Makuen.
37 Neuroses of the Pharynx. F. E. Hopkins.
38 Neuroses of the Larynx. Emil Mayer.
39 *Some Interesting Cases of Mastoiditis. James F. McCaw.
40 *Treatment of Tinnitus Aurium. Wm. S. Bryant.
41 Unilateral Hyperæsthesia of the Tongue as a Concomitant of Acute Otitis Media. Lennox Walmwright.
42 Chevalier Jackson's Transilluminator with Some Modifications. Otto T. Freer.

**39. Some Interesting Cases of Mastoiditis.**—The first case reported by McCaw is one of acute suppurative otitis media, mastoiditis, subperiosteal mastoid abscess and perisinus epidural abscess following scarlet fever. The interest in this case centers about the fact that, although rupture had taken place through the external surface of the mastoid, serious involvement of the intracranial contents was taking place. It furnishes a striking illustration of the necessity of always opening the mastoid process in subperiosteal accumulations, regardless of the fact that the external surface may show no pathologic changes. The patient was operated on and recovered. The second case was one of acute suppurative otitis media and double mastoiditis, following an attack of influenza. The points of interest in this case, besides the simultaneous occurrence of a double mastoiditis, were the profound septic conditions and mental derangement. The third case contracted acute suppurative otitis media and mastoiditis following typhoid fever. Although there was some uneasiness in the ear for about one week, it was only three days after the first pain in the ear before operation revealed an extensive mastoid involvement. There must have been a simultaneous infection of tympanum and mastoid, as the extensive distribution of pus and the beginning necrosis can not be accounted for in any other way. The anomalous arrangement of the cells about the mastoid tip also was a peculiarity in this case. The most internal one was situated so deeply that it might readily have been overlooked and continued to act as a focus of infection. In the last case, one of acute suppurative otitis media, mastoiditis, epidural abscess and meningitis, there was no history of a previous illness, except that the patient, a man aged 87, had been almost totally deaf in one ear for twenty years. The diagnosis was evident, but in view of the patient's extreme age, the complications and the request of the family, operative measures were desisted from at that time. When the operation was finally performed the patient died, without regaining consciousness, forty-eight hours afterward with pulmonary edema.

**40. Treatment of Tinnitus Aurium.**—Bryant gives a very thorough review of the local treatment of tinnitus aurium from all causes, and presents the following classification:

I. OBJECTIVE.
  1. VIBRATORY:
  1. *External:* (a) Vascular. (b) Pharyngeal. (c) Respiratory. (d) Muscular.
  2. *Internal:* (a) Tubal. (b) Tympanic.
II. SUBJECTIVE.
  (A) PHONETIC.
  1. *Exaural:* (a) Vital. (b) Diplacusic.
  2. *Endotic:* (a) Circulatory. (b) Myotolitic. (c) Movement. (d) Somatic.
  (B) NEUROTIC.
  1. *Peripheral:* (a) Reflex.
  2. *Otic:* (a) Conduction: I. Myringeal. II. Tubal. III. Ossicular. IV. Mucous. V. Contraction. VI. Adhesion. VII. Fenestral. VIII. Traumatic. IX. Meatal. (b) Reaction.
  3. *Sensory:* (a) Nerve Tinnitus: I. Peripheral. II. Trunk. III. Proximal. IV. (b) Psychopathic: I. Central. II Illusional. III. Hallucinational. IV. Delusional.

### Pacific Medical Journal, San Francisco.

*June.*

43 *The Stump in Appendectomy. Winslow Anderson.
44 The Medical Profession in a Civilized Century. B. M. Jackson.
45 *Acute Thyroidism Following Curettage. B. H. Wells.
46 Phlyctenular Keratitis. Louis P. Dorais.

**43. The Stump in Appendectomy.**—Anderson treats the stump of the appendix after an appendectomy as follows:

As soon as the appendix is "delivered" or brought out of the abdominal cavity with or without a portion of the caput coli, and freed from adhesions, should there be any, I apply an angiotribe (the blades of which measure one centimeter in width) to the appendix close up to and flush with the colon. The angiotribe compresses the appendiceal tissues so firmly that only the peritoneal tissue remains. By means of an intestinal or cambric needle, threaded with No. "0" catgut, a "purse-string" ligature is applied in the walls of the colon one centimeter from the base of the appendix. The next step consists in the introduction of a ligature of the same material through the mesenteriolum midway between the appendix and its free margin. The abdominal wound is now carefully packed with sterile moist gauze to protect the peritoneal cavity from the slightest possible infection. The angiotribe is removed and the ligature tied around the appendix, flush with the bowel where the angiotribe has crushed the tissues. When practicable, as it usually is, the same ligature is retied about and made to include the mesoappendix. Should the latter be too large or contain too much adipose tissue several small ligatures are applied to it. Forceps are now applied to the distal end of the appendix and mesoappendix within two centimeters of the ligature and the appendix and mesenteriolum are amputated between the ligatures and forceps. The ligatures control all the bleeding and oozing and the 10 millimeters of appendiceal stump consist of nothing but peritoneal tissue, the mucosa and muscularis having been crushed. Pure liquid carbolic acid is applied to the stump; this is followed with pure peroxid. The whole is washed with sterile hot normal salt solution and then carefully dried. An antiseptant now depresses the stump into the caput coli and the "purse-string" ligature is tied, thus completely invaginating the ligatured stump. By placing the "purse-string" ligatures about one centimeter from the base of the appendix, and by leaving the stump only about 10 millimeters long, the serous surfaces of the invaginated colon and appendiceal stump come in actual contact and rapidly adhere, forming a solid base, which has never, in my hands, left any depression or infundibulum for future trouble.

The advantages of this method are the following: 1. The mucosa is entirely crushed and the stump thoroughly sterilized; 2, the ligature is applied flush with the colon, leaving no infundibulum and no appendiceal tissue to create further trouble. 3. The invagination is complete with sero-serous surfaces in contact, favoring rapid healing. 4. Absorbable ligature material is used which never becomes infected and never causes a sinus to form. 5. Intra-abdominal adhesions do not take place, as the cut surfaces are invaginated. 6. The ligature about the appendiceal stump prevents the formation of a fistula, which may occur when the stump is not ligated. 7. The method is simple, can be executed rapidly, and is thoroughly aseptic.

45.—This article has appeared elsewhere. See THE JOURNAL, July 9, ¶18, p. 149.

### Journal of the Association of Military Surgeons, Carlisle, Pa.

*August.*

47 *The Medical Treatment of Appendicitis in Accordance with the Modern Principles of Therapeutics. Enrico Castelli.
48 *An External Suture. Thomas Page Grant.
49 The New Hospital Corps Drill Relations for the U. S. Army. Frederick P. Reynolds.
50 Typhoid Fever in the Tropics. Thomas C. Biddle.
51 The United States Army General Hospital at the Presidio, San Francisco, Cal., 1901-2. Alfred C. Girard.
52 The Medical Department of the Japanese Army.
53 The Splint Stretcher. Charles F. Stokes.
54 Case of Pernicious Malarial Fever; Comatose Type; Recovery. Frederick Hadra.

**47. Medical Treatment of Appendicitis.**—Castelli opposes the routine medical treatment of appendicitis because of its direct antagonism of physiologic principles. Because of the fact that constipation always accompanies appendicitis, and that all patients affected by this disease suffer from constipation, he concludes that the appendix is, perhaps, the governing center of the secretory intestinal functions, and, for this reason, as well as for other reasons, he is strongly opposed to the new practice of surgery which deprives persons coming under the knife of a healthy appendix. At the beginning of an attack of appendicitis he directs his attention carefully to the removal of fecal stasis. His preliminary treatment is as follows: 1. The administration of salicylate of sodium, dose .75 eg., to be given twice, within the interval of one hour. The salicylate is a cholagogue, an antithermic. In order to avoid the irritating action of the salicylate on the gastric mucous membrane, he uses an excipicus—Vichy water. 2. Three hours after the administration of the salicylate, he gives calomel in doses of .05 eg., to be taken one hour apart, until the first intestinal evacuation occurs. Calomel acts as an intestinal antiseptic, as a cholagogue, laxative diuretic, and as a stimulant of the pancreatic secretions. The necessity of relieving pain, internal congestion, depression of the nervous system and high temperature, have induced him to add to the symptomatic treatment of appendicitis the use of warm balneation. The warm bath produces a general tonic sedative effect on the nervous system; it equilibrates thermogenesis; it decongests the internal organs, produces analgesia, and relieves all pain of a colic type. Besides, it has an antitoxic effect since it increases the reactive processes of metabolism, produces free exudation, and relieves the iscuriæ paradoxæ. The temperature of the water varies from 25 C. to 40 C. During the bath he gives small doses of cold champagne. The hot pack may be substituted for the hot bath. As an adjunct to the relief of constipation he gives at the beginning of the attack an enema of warm water and sodium chlorid—solution 5 per cent., temperature, 18 C. to 28 C., quantity 400 drams—to be injected at a low pressure. The infective cause of appendicitis is attacked by intra-muscular injections of 1 c.c. of the following solution every two hours: Acid. carbol., .20 eg.; water, 10 grams; pure alcohol, 2 grams. A diminution of temperature and of the nervousness peculiar to the disease usually takes place after the second injection. The results he has obtained from this treatment are such as to warrant its adoption in cases in which no possibility of surgical intervention exists.

**48. An External Suture.**—Grant describes a simple dressing which he devised as a substitute for the suture to meet an emergency in the shape of a badly contused and lacerated wound on the forehead. It has proven so satisfactory that he has used it many times since. The materials for this external suture are—strips of adhesive plaster (isinglass plaster on muslin is the best, as it is least likely to slip or creep on the skin), some ordinary old-fashioned dress hooks, and some rubber bands, No. 7 or 8. The plaster should be either one-half or three-quarters of an inch in width, for one or two hooks, as the case may be. More than two hooks on a strip does not work satisfactorily. The hooks and rubber bands should be boiled and put in a bottle kept well stoppered. The plaster, too, must be aseptic. Having cut the plaster the desired width, make two holes for each hook to be used, the holes to be about one inch from the end of the strip and a quarter of an inch apart. The rings on the back end of the hooks are to be opened so as to better catch in the plaster. Turn the free ends of the plaster back on itself, and make a double thickness under the hooks. This prevents the plaster from adhering too close to the wound, and keeps the hooks from pressing too much on the edges of the wound. The plaster may be as long as is thought best to make the proper tension, and it should be brought to within from half an inch to an inch of the edge of the wound. When it is firmly adherent, begin lacing the rubber band from one hook to its fellow of the opposite side, drawing as tight as may be needed to bring the lips of the wound together. It may be desirable sometimes to put a gauze pad under the hooks. This may be done before the rubbers are tightened, or, better still, after the wound is drawn together. If it is desired to make the dressing waterproof, the plasters may be painted with a little collodion, or a solution of rubber in bisulphid of carbon. Some of the advantages of this external suture are the following: 1. The possibility of using it in cases of extensive contusion or laceration where the thread suture can not be used. 2. Freedom from stitch abscesses. 3. The rubber bands allow for almost any amount of swelling, which with the ordinary suture often calls for the clipping of the stitches before union, and which not infrequently causes the stitches to ulcerate out. Its use makes it possible to adapt the edges of a contused wound into a normal position, or nearly so. This dressing is not offered as a universal substitute for the needle, but in very many cases of minor surgery its use will afford both comfort and success to the surgeon, and save the patient from a large scar and perhaps from much suffering.

### Texas Medical Journal, Austin.

*July.*

55 *Compound Comminuted Fracture of the Spinal Vertebræ; Operation and Recovery. E. M. Albers.
56 Case of Renal Calculus with Operation. John B. Thomas.

**55. Compound Comminuted Fracture of the Spinal Vertebræ.**—Albers describes a case of compound comminuted fracture of the spinal vertebræ, the injury extending from the second lumbar vertebra to the base of the sacrum, freely exposing the cauda equina. Under strict asepsis, without an anesthetic, all detached fragments were removed, the depressed bone elevated, and the ragged pieces excised. An ice pack was placed over the site of the wound, and applied continuously for four days, when it was temporarily discontinued for twenty-four hours. During the first four days following the injury, retention of urine existed, and during the first seven days, the bowel was paralyzed. After the ice pack was left off the temperature rose to 103¾ F.; pulse, 125; respiration, 26. The ice pack was reapplied, and on the second day following the temperature, pulse, and respiration were normal. The wound healed without suppuration. One year after the injury the patient was fully restored to health. The author calls special attention to the value of the ice pack in the treatment of wounds in a hot, sultry climate. Otherwise, they have a tendency to inflame and suppurate, even in the presence of strict asepsis.

### American Practitioner and News, Louisville.

*July 16.*

57 Cretinism—Synonyms: Sporadic Cretinism, Cretenoid Idiocy; Myxedematous Idiocy, with Pachydermatous Cachexia. F. J. Kieffer.
58 *Report of Case of Splenic Leukemia Treated by X-rays. J. T. Dunn.

**58. The X-Ray in Splenic Leukemia.**—Dunn reports another case of splenic leukemia which is being treated successfully with the *x*-ray. The blood examination confirmed the clinical diagnosis. *X*-ray treatments were given almost daily, each consisting of an exposure over the spleen with a hard tube at eight inches distance for ten minutes. When thirty-six treatments had been given, the general condition of the patient was very much improved, and the spleen had decreased in size considerably and was quite soft. After seventy-five treatments the spleen was barely palpable. The patient had the appearance of one in perfect health. Two months before treatment was begun the blood findings were as follows: Red cells, 4,600,000; leucocytes, 128,000; color index, .85; proportion of red cells to leucocytes, 35 to 1. Red cells: shape, irregular; size, irregular; nucleated, none. Leucocytes: large lymphocytes, 8 1/3 per cent.; small, 5 2/3 per cent.; polymorphonuclear, 39 per cent.; eosinophile, 8 per cent.; myelocytes, 38 per cent. Hemoglobin, 60 per cent. The last count, made six months after treatment was instituted, showed the following: Red cells, 5,544,000; leucocytes, 37,000; color index, .65; proportion of red cells to white, 149 to 1. The red cells were of irregular size and shape but not nucleated. Leucocytes: Large lymphocytes, 5 per cent.; small, 10 per cent.; polymorphonuclear, 65 per cent.; eosinophile, 5 per cent.; myelocytes, 15 per cent. Hemoglobin, 65 per cent. The patient is still under treatment and feels perfectly well. She has taken 129 treatments in all.

### Ophthalmic Record, Chicago.

*July.*

59 The Practical Application and Use of a Simple Test for the Latent Convergence Power. Mark D. Stevenson.
60 *Report of a Case of Bilateral Dislocation of the Crystalline Lenses Into the Anterior Chambers. H. W. Woodruff.
61 *A Case of Triple Rupture of the Choroid Coat. J. Davidson Lewis.

**60. Bilateral Dislocation of the Crystalline Lenses.**—Woodruff reports the case of a girl, 9 years old, in whom following the instillation of eserin the crystalline lens of the right eye disappeared into the vitreous; that of the left eye remained in position, but the tension became elevated and had to be relieved by a pericentesis. After the effects of the eserin wore off the lens in the right eye returned to its normal position. Occasionally it would be missing, but most of the time it could be found in the anterior chamber. These cases are exceedingly rare.

**61. Triple Rupture of the Choroid Coat.**—A case of this kind is reported by Lewis, following a severe blow from the fist. There was no discoverable fracture at the orbital bones, the ocular conjunctiva was slightly congested; there were no appreciable notchings at the pupillary margin of the iris; the aqueous, cornea, lens and vitreous were normal. The tension was normal, but there was slight photophobia; no pain. On ophthalmoscopic examination of the eye there were found three very dark hemorrhages (choroidal) with sharp borders—one situated one-quarter disc diameter from the papilla, and two on the temporal half of the fundus; one one-quarter disc diameter from the nerve and the other three and one-half disc diameters from the papilla. Retinal vessels traversing the hemorrhagic areas were not visible. In addition to these hemorrhages, there was a large retinal extravasation upward and slightly inward from the disc, and blood was plainly visible in the macula. Four months following the injury the eye ground presented a picture of three typical choroidal ruptures, the margins of which were entirely free from pigment granules. The treatment consisted of rest and atropin instillations. The elements of interest in the case were the clearness of the media, especially the vitreous; a choroidal rupture situated in the nasal half; a horizontal rupture of the choroid; absence of pigmentary deposit about the margins of the rupture; the condition of the macula and the accompanying retinal hemorrhage.

### Therapeutic Gazette, Detroit.

*July 15.*

62 *The Surgical Treatment of Abortion. F. C. Hammond.
63 Strychnia as an Evacuant. George E. Pettey.
64 *Internal Hemorrhage from Ectopic Gestation Without Rupture of the Sac. E. E. Montgomery.
65 Eserin: a Warning. G. G. Speer.
66 Meteorism Following Abdominal Operations. A. P. Condon.

62.—See abstract in THE JOURNAL, xlii, p. 1375.

**64. Internal Hemorrhage in Ectopic Gestation.**—Montgomery calls attention to the possibility of grave internal hemorrhage in ectopic gestation without rupture of the gestation sac, and reports a case in point. The patient, aged 35, menstruated last in April and again a few days before she came under observation late in June, and has had a continuous flow since attended with attacks of severe pain in the lower abdomen. At one time, the pain became very severe, and a small portion of membrane was discharged from the vagina. After careful examination the diagnosis of ectopic gestation was made, but the shock did not appear to be sufficient to indicate either rupture or tubal abortion. The abdomen was opened and a large quantity of blood evacuated. The left appendages were adherent, but otherwise normal; the right tube presented a sac occupying its outer half, which was filled with a clot, but showed no rupture. The fluid had escaped by the end of the tube, and apparently so slowly that there was no evidence of shock. A subsequent examination disclosed that portions of the sac had become extremely thinned, and at one place a small rupture had probably exposed the villi, from which bleeding had occurred, as well as from the abdominal osteum. The clot in the tube arrested the bleeding and prevented a fatal result. Another class of cases in which hemorrhage occurs without rupture are those in which the chorionic villi have penetrated the over-stretched tubal wall, and bled from their extremities through the peritoneal surface of the tube. These villous projections may be so small as only to be perceptible by the microscope, and yet cause a dangerous hemorrhage. This hemorrhage is so insidious, so capable of recurrence, and associated with the danger of rupture and increased hemorrhage when the vital forces of the patient are most reduced, that it is important to make an early diagnosis.

### Mobile Medical and Surgical Journal.

*June.*

67 *Pure Drinking Water for Country Homes and Villages Unsupplied with Water Works. Edgar B. Kay.
68 Acute Milk Infection. Bernard Phillips.
69 The Menopause. J. L. Ellis.
70 The Treatment of Chronic Ulcers of the Leg. W. S. Britt.

**67. Pure Drinking Water.**—Kay says that pure water is a laboratory compound, hydrogen monoxid, not found in nature. It is a powerful oxidizing agent, and if it could be obtained as a

supply for a household or town, would be entirely unsatisfactory. It is unsuited for domestic purposes, and is even more objectionable for generating steam because of its tendency to oxidize metals, and in that way to destroy apparatus. The chemistry of good drinking water is discussed at great length; it is the same as can be found in any modern text-book on the subject. For the filtration of surface waters used in the household the author recommends filters made of unglazed porcelain or fine infusorial earth, such as the Pasteur and Berkefeld filter. The latter is superior to the former, as it filters considerably faster. Of course, all filters require frequent and thorough cleansing. It may be necessary to sterilize or distill the water or to purify it chemically. Of the method instituted for the chemical purification of water, the most successful has been the use of ozone, generated electrolytically and passed through the water. Traube's method, the addition of chlorinated lime or bleaching powder, is also a good one. For general domestic use no water requiring treatment is to be recommended; first, because of the expense involved in securing the required purification, and secondly, because of the danger through carelessness or neglect of not being able at all times to maintain a proper standard of purification. The capitalized cost of maintaining a purification system generally will more than suffice to provide a supply of wholesome water. Having procured a satisfactory supply of water for domestic use, it is necessary that such constructive measures shall be taken as will enable the water to be transported from its source to the place of utilization without impairing its quality, and of storing it in sufficient quantities for all ordinary uses or emergencies.

### Kentucky Medical Journal, Louisville.

*July.*

71 Ether Anesthesia. R. Linsey Ireland.
72 *Mastoiditis in General Practice. J. A. Stucky.

72. **Mastoiditis in General Practice.**—Stucky is of the opinion that the average practitioner does not appreciate the gravity of suppurative disease of the ear, nor equip himself with the facilities for recognizing serious complications, either in the acute or chronic forms. The average case of chronic otorrhea can not be wiped out or medicated into a healthy condition. Mastoid antrum disease is the appendicitis of the head, and every case of chronic suppuration of the middle ear is a slumbering volcano or a charge of dynamite liable to explode at any time. The only safe treatment for suppurative mastoiditis is an early opening of the cells and the establishment of free drainage, thus getting rid of the disease entirely, or else making it the point of least resistance from the brain in case of subsequent infection. Under aseptic precautions the operation is practically devoid of danger; delay in doubtful cases may lead to more serious complications. When in doubt whether there is pus formation, if there be evidence of mastoid involvement, it is safer to do an immediate exploratory operation rather than to attempt to abort the disease. In no diseases are the symptoms more misleading than in the one under consideration. Pain, temperature, and pulse, and general systemic condition often do not give evidence of the serious destruction of tissue and rapid inroads being made on the vital centers. The auditory canal should be examined thoroughly, and any sagging or bulging of the posterior superior wall is to be regarded as pathognomonic evidence calling for immediate operation. Pressure, which causes pain over the antrum or tip of the process after the third or fourth day of an acute otitis media in which there is a free drainage through the tympanum with systemic disturbance, is also an indication for surgical interference. The consensus of opinion is that it is eminently wise to operate on cases of chronic suppuration in the quiescent state. Then the Stacke operation can often be done, involving a short convalescence. There is always danger in delay, but, perhaps, never more so than in the acute stage of mastoiditis when involvement of important structures may be very rapid and often fatal.

### Medical Fortnightly, St. Louis.

*July 25.*

73 Some Remarks on Bacteria in the Dead Body. R. B. H. Gradwohl.
74 Diagnosis of Pulmonary Tuberculosis. Frank Billings.
75 Dimness of Vision as an Ocular Complication with Lumps, with Report of Two Cases. W. B. Fischer.
76 Observation on the Relations of the Ductus Bilis and Ductus Pancreaticus, with Illustrations of Calculus in Each Duct. Byron Robinson.
77 A Plea for Early Exposure of the Mastoid Antrum and Cells in Persistent Acute Otitis Media Purulenta with Pain. J. C. Buckwalter.
78 Value of Blood Examination in Differential Diagnosis. Herbert A. Potts.

### Virginia Medical Semi-Monthly, Richmond.

*July 22.*

79 The Bedside Diagnosis of Typhoid Fever, with Special Reference to the Early Recognition of the Disease. Charles E. Chandler.
80 Cholera Infantum. W. H. Wallace.
81 Gastro-uterine Disease. Joseph M. Rector.
82 Fractures of the Skull. J. Shelton Horsley.
83 Sundown Journalism. T. D. Crothers.
84 Diphtheria. J. A. Williams.

### Northwestern Lancet, Minneapolis.

*August 1.*

85 A Study of Electrical Injuries. H. L. Stapler.
86 Art and Science of Medicine. Charles Lyman Greene.
87 Some Ideas Regarding the Nature of Syphilis. Franklin R. Wright.

### Central States Medical Magazine, Anderson, Ind.

*July.*

88 Diagnosis, Reminiscent. John E. Lockridge.
89 Chronic Muscular Rheumatism and Sodium Salicylate. G. D. Lind.
90 Blood Diagnosis in Typhoid Fever. W. T. S. Doods.
91 Enemata. J. W. Wainwright.
92 Report of a Case of Typhoid Fever Complicated by Subcutaneous Abscesses and Intestinal Hemorrhage with Temperature of 107 Degrees. H. M. Johnson.
93 Report of a Case of Pneumonia with Reinfection, Necessitating Thoracotomy, Followed by Recovery. T. Roy Cook.

### Oklahoma Medical News-Journal, Oklahoma City.

*July.*

94 Organization. A. K. West.

### Therapeutic Review, Philadelphia.

*July.*

95 Glandular Fever, with a Report of Three Cases. Clara T. Dercum.

### Medical and Surgical Monitor, Indianapolis.

*July 15.*

96 Some Later-day Tendencies in Medical Education. Stanley Coulter.
97 Some Points on Modern Principles in Treating Fractures and Dislocations. J. B. Fattic.
98 Syphilis—A Non-venereal Disease. Nelson D. Brayton.
99 Tuberculosis. Wm. A. McCoy.
100 Pneumonia and Its Treatment. Henry R. Slack.

### Journal of Medicine and Science, Portland, Maine.

*July.*

101 Ocular and Aural Therapeutics. Erastus E. Holt.

### Colorado Medicine, Denver.

*July.*

102 Perforation of the Appendix, with General Peritonitis, Sepsis and Perforation of the Colon. John P. Hammill.
103 Some Helpful Analogies. W. W. Wilkinson.

### Kansas City Medical Record.

*July.*

104 Duty of the Medical Expert. A. L. Fulton.
105 Acute Gastroenteric Infection or Summer Diarrhea. Tom Fields.

### Fort Wayne Medical Journal-Magazine.

*July.*

106 Clinical Consideration of Arteriosclerosis. A. C. Kimberlin.

### Pacific Medical Journal, San Francisco.

*July.*

107 Simplicity in Diagnosis and Therapy of Digestive Disorders. Alfred W. Perry.
108 Immunity from Tuberculosis; Its Production by Fat Foods and Outdoor Camp Life. Thomas Bassett Keyes.

### St. Louis Courier of Medicine.

*July.*

109 Use of the Colpeurynter in Obstetric and Gynecologic Practice. George Gellhorn.
110 The Vesical Trigone. Trigonum Vesicæ—Its Anatomy and Physiology. Byron Robinson.
111 Report of a Case of Senile Chorea. W. L. Johnson.
112 Should a Physician Attending Puerperal Sepsis Continue His Midwifery Practice? H. N. Chapman.

### Vermont Medical Monthly, Burlington.

*May 25.*

113 Pulmonary Tuberculosis. D. D. Grout.
114 Ten Years' Obstetrical Practice. W. J. Aldrich.

### Western Medical Review, Lincoln, Neb.

*July.*

115 The Medical Profession: Its Relation to the Public. B. F. Crummer.
116 Electro-therapeutics in Country Practice. F. A. Butler.
117 Meteorism Following Abdominal Operations. A. P. Condon.

### Woman's Medical Journal, Toledo, Ohio.

*June.*

118 Acute Rheumatism. Marie Schmidt.
119 Facial Erysipelas in the Third Week of the Puerperium in a Woman with Serious Heart Lesion. Mary O. Porter.
120 "The Emotions." Lena A. Beach.

### Medical Herald, St. Joseph, Mo.

*July.*

121 *Minimum Requirements for Aseptic Surgical Operating in a Hospital in which the Personnel of the Operating Room is Permanent. A. J. Ochsner.
122 Home Management of Chronic Cases. J. H. Cleaver.
123 Fecal Impaction. F. E. Walker.
124 Vague Muscular Pains and Aches. G. B. Acker.
125 Correction of Some Complications in the First Stage of Labor. W. Berry.

121.—See abstract in THE JOURNAL of July 2, p. 67.

### Medical Mirror, St. Louis.

*June.*

126 Neural Phases of Dentistry. Marc R. Hughes.
127 Some Clinical and Pathologic Phases of Urinary Obstruction. G. Wiley Broome.
128 Case of Complete Retroversion of the Gravid Uterus. N. Newahan Davis.

### Dominion Medical Monthly, Toronto.

*July.*

129 Influence of Heredity on the Expectancy of Life. H. B. Frank.
130 Expectancy of Life in Morbid Conditions of the Genito-urinary System. F. Lalk. Grant.
131 Expectancy of Life in Morbid Conditions of the Cardio-vascular System. Robert J. Dwyer.
132 Expectancy of Life in Morbid Conditions of the Respiratory System. Edwin Ryan.
133 The Nervous System in Relation to Life Assurance. H. C. Scadding.
134 Life Insurance. James Thorburn.
135 Influence of the Plan of the Acceptance of Risks for a Life Insurance Company. Percy C. H. Papps.
136 Financial Responsibility of the Medical Examiner for Life Insurance. Bruce L. Riordan.

### Alabama Medical Journal, Burlington.

*July.*

137 Abdominal Hysterectomy for Fibroid Tumors of the Uterus. George H. Noble.
138 Passing of the Old-time Doctor. George T. McWhorter.
139 Some Suggestions in the Management of Large Cystic Tumors of the Abdominal and Pelvic Cavities, with Report of Case. W. R. Bishop.

### Carolina Medical Journal, Charlotte.

*July.*

140 Management and Treatment of Typhoid Fever. R. M. Reid.
141 The Sponge Bath in Typhoid Fever. H. S. Monroe.
142 Immunity. Albert Anderson.

### Journal of Comparative Neurology, Granville, Ohio.

*July.*

143 Associative Processes of the Guinea-pig. A Study of the Psychical Development of an Animal with a Nervous System Well Medullated at Birth. Jessie Allen.

### Old Dominion Journal, Richmond, Va.

*July.*

144 George Ben Johnston, Twenty-third President of the American Surgical Association. Charles R. Robins.
145 Errors in Diet as a Cause of Infantile Diarrhea. St. G. Grinnan.
146 Medical Society's Dynamics. W. H. Wallace.
147 Report of an Obstetrical Case. John R. Woodville.
148 Modification of Cow's Milk for Feeding in Early Infancy. McGuire Newton.

## FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

### British Medical Journal, London.

*July 30.*

1 *President's Address, British Medical Association. William Collier.
2 *Address in Medicine. William Selby Church.
3 *Address in Surgery. William Macewen.

1, 2, 3.—See abstract in the Society Proceedings of THE JOURNAL in this issue.

### The Lancet, London.

*July 30.*

4 The Growth and Development of the Oxford Medical School. William Collier.
5 Our Sanitary Needs, with Special Reference to the National Health. William S. Church.
6 The Hereditary Bias and Early Environment in Their Relation to the Diseases and Defects of Children. R. Clement Lucas.
7 Bright's Disease and Its Varieties. John Rose Bradford.
8 *Red Light Treatment of Smallpox. T. F. Ricketts and J. B. Byles.
9 Sleeping Sickness: A Résumé. Aubrey D. P. Hodges.
10 Symptoms and Treatment of the Intracranial Complications of Otitis Media, with Cases. George Heaton.
11 *Case of Multiple Sarcoma. Seymour Taylor.
12 Case of Acute Arsenical Poisoning. R. E. Sedgwick.

8. **Red Light Treatment of Smallpox.**—The authors report a series of 13 cases in which the red light was used without any benefit to the patient. The ward in which these cases were treated was a small one containing four beds. It has six windows, all of which were blocked by a double layer of photographic "ruby" fabric. There were two doors, over each of which was hung a curtain made of a double thickness of red "Turkey twill." The doors opened into lobbies, and an area around each door was screened off with a double thickness of the same material, so that on passing through the door and under the door curtain one found oneself in a small chamber completely shut in with red curtains. The effect of this arrangement was that persons entering or leaving the ward admitted no white light when raising the curtains. In fact, the ward was converted into a photographic dark room. Artificial light was obtained by the use of dark room lamps with red glass. Of the 13 cases treated in red light throughout the period of suppuration, 5 were vaccinated, 6 were unvaccinated, 1 patient had been vaccinated in the period of incubation, and in 1 case the matter was doubtful. Four were cases of discrete and 9 of confluent smallpox. The mildest case was one of a very moderate type of discrete smallpox, and at the other extreme was one of very severe confluent smallpox. Two of the patients died, both during the fever of suppuration. In neither case was there any complication to which the fatal result could be attributed. The treatment did not affect suppuration nor did it prevent scars. The milder cases recovered without scars and the more severe did not. The authors agree that this treatment possesses none of the merits which have been claimed for it; in fact, the mental complications occurred more frequently and were more severe than with the ordinary methods of treatment. In most of these cases the treatment was harmful. In addition to increasing the tendency to mental symptoms, the suppurative fever appeared to range higher than might have been expected, and the general condition of the patient was bad. The patients did well in respect to affections of the eye, as might be expected, but they had more than their share of the other septic sequelæ of smallpox. One great objection to the red-light treatment is the difficulty of carrying out personal and general hygienic measures, because in excluding light we must necessarily limit the supply of air. In all suppurative conditions, and especially in smallpox, an abundant air space and the freest circulation of air is essential. Any form of treatment which puts a check on the supply of fresh air must be regarded with suspicion unless it brings solid advantages in compensation, which is not the case with the red-light treatment. The writers appeal to Dr. Finsen to cease to lend the weight of his authority to the support of a method of treatment which, if it is inefficacious, necessarily must be inhumane.

11. **Multiple Sarcoma.**—Taylor reports the case of a man aged 32, the victim of multiple sarcomata. Scattered over the abdomen and thoracic walls were a number of solid tumors varying in size from that of an orange to that of a large pea. The large growth was situated on the right side of the abdominal wall midway between the anterior superior iliac spine and the umbilicus. Its surface was red and granular, but there was no discharge, although yellowish scales of necrosed epidermis appeared between the granular nodules. Both mammæ were indurated and involved with the neoplasm. Similar nodules were found in the skin over each fourth costal cartilage, and gave the impression of a circular outbreak involving the abdominal wall principally, but also the lower zone of the thorax, but to a lessened degree. Smaller growths were found over the front of the upper chest. The inguinal and axillary lymph glands were indurated and matted together. Those of

the neck were unaffected. The skin was fully movable over each tumor and was uninvolved over the smaller ones. Similar tumors were also found on the back, especially over the left scapula. All these growths appeared within a period of six months. Microscopic examination showed these tumors to be small round-celled sarcomata. The patient died seven months after the first signs of the disease were noticed. No autopsy was allowed.

### The Practitioner, London.

*July.*

13 History of Syphilis in France Since Ricord. Paul Gaston.
14 *Mercurial Injections in Treatment of Syphilis. Louis Wickham.
15 On the Treatment of Syphilis in Wiesbaden. Karl Touton.
16 The Treatment of Syphilis at Aix-La-Chadelle. Anton Levin.
17 *The Zittmann Treatment of Tertiary Syphilis. Alfred Cooper.
18 Syphilis Disease of the Brain. F. W. Mott.
19 *Serum Treatment in Syphilis. J. Ernest Lane.
20 Syphilis in Egypt. Frank C. Madden.
21 Syphilis in Children. George F. Still.
22 The Ocular Manifestations in Syphilis and Their Treatment. Walter H. Jessop.
23 Syphilis and its Treatment in the Upper Air Passages. St. Clair Thomson.

**14. Mercurial Injections in Syphilis.**—Wickham says that the hypodermic method has the great advantage of sparing the stomach; it favors the more direct penetration of the mercury into the blood stream, a more complete utilization of the dose administered, and permits of exact dosage. Before undertaking the treatment, it is well to examine the urine with reference to the condition of the kidneys, and to insist that the teeth be thoroughly overhauled by a dentist. If the state of the kidneys is carefully watched and the cleanliness of the mouth maintained, large doses of mercury can be taken without inconvenience. The initial dose should be small, and then raised gradually, but persistently, as long as no reaction is produced. The surgeon should inform himself of the exact mercury content of the salt he elects to use. It is well to restrict one's medical armament so that by employing only a small number of preparations we may become thoroughly familiar with the mode of using them. It is best to raise the dosage to a considerable amount rather than to use a moderate average dose, which may prove quite insufficient in particular instances. It must be remembered that an attack of syphilis which at first appears benign may develop into a grave case. In cases of gravity it is natural to employ large doses; but every case must be looked on as potentially grave and treated as such. Along with the treatment by injections all collateral remedial measures must be carried out, such as local dressings and tonics; these measures are of the greatest importance and may in some cases assume a dominant position. In cases where the weakness of the patient is marked, injections of mercurial salts incorporated with large doses of physiologic serum are excellent, although the injections of the serum in large quantities apart from the daily injections of soluble salts of mercury are preferable. The best site for the injection is the buttock, at the point of intersection of two lines, one horizontal line passing through the junction of the upper quarter with the lower three-quarters of the buttock, the other a vertical line through the junction of the internal third with the external two-thirds of the region. The injections can be made in an area having a radius of 2 cm., the point of intersection of the two lines being its center. The injections may be either superficial, or they may be deep; because of the irritation produced by salts of mercury, the injections are almost always intramuscular. In thin subjects, in whom gluteal intramuscular injections are not well borne, and in whom it is necessary to attack the disease vigorously, the intravenous route may be chosen. The injections may be given at the bend of the elbow into the cephalic or basilic vein on either side. The usual antiseptic precautions must be observed. The salt used is a cyanid, the largest dose hitherto employed being 0.01 gram daily. The author also discusses the instrumentation, the different mercurial solutions, preparations of insoluble salts, and gives directions for treatment and the choice of salt to be used.

**17. Zittmann Treatment of Tertiary Syphilis.**—Cases are occasionally met with in which iodid or mercury not only prove ineffectual in arresting the progress of the disease, but actually aggravate the symptoms and hasten the destruction of tissue. It is in such cases as these, says Cooper, that the Zittmann treatment proves most effectual. Under it healing occurs rapidly, and the symptoms disappear quickly. A fortnight's treatment with this remedy will arrest the disease and will cause rapid healing and cicatrization of the lesions. The principle of the treatment consists in eliminating the poison from the system by sweating and purgation. The patient is kept in a room the temperature of which is maintained at 80 F. The evening before commencing the treatment two of the following pills are administered:

| | | |
|---|---|---|
| B. Hydrarg. chloridi mitis | gr. ii | 12 |
| Ext. colocynthidis | gr. v | 30 |
| Ext. hyoscyami | gr. ii | 12 |

The diet is regulated, and for the first four days the patient drinks half a pint of the following decoction, as hot as possible, at 9, 10, and 11 a. m., and 12 m.

DECOCTION I.

| | | |
|---|---|---|
| B. Rad. sarsæ contus. | iv | |
| Sem. anisi contus. | | |
| Sem fœniculi contus, āā | 3viiss | 31 |
| Fol. sennæ | ℥i | 30 |
| Rad. glycyrrh. contus. | iv | |
| Add: in a linen bag: | | |
| Sacchar. alb. | | |
| Alum. sulph. | | |
| Hydrarg. chloridi mitis, āā | 3iss | 6 |
| Hydrarg. bisulph rub. | 3i | 1 |
| Aquæ | Cong. iii | 12 liters. |

Boil gently down to 1 gallon, strain, and put into four 40-ounce bottles.

On the same days, at 3, 4, 5 and 6 p. m., half of the following decoction, which is taken cold:

DECOCTION II.

| | | |
|---|---|---|
| To the dregs from No. 1 decoction add: | | |
| Rad. sarsæ contus. | ℥ii | 60 |
| Cort. limonis contus. | | |
| Sem. cardamon contus | | |
| Rad. glycyrrh. contus., āā | 3i | 4 |
| Aquæ | Cong. iii | 12 liters. |

Boil gently down to 1 gallon and put into four 40-ounce bottles.

The patient is kept in bed except for an hour every evening, when he may sit up. On the fifth day he is given a hot bath and allowed to get up. In the evening two pills are administered, the patient starting the decoctions again on the next day as before. This treatment goes on in the same way until the fifteenth day, when it is discontinued. The author has used it with great success in all the tertiary lesions of syphilis, as well as in many skin diseases and in rheumatic and gouty affections.

**19. Serum Treatment in Syphilis.**—The results of this treatment, says Lane, have not been sufficiently favorable to recommend it as a routine therapeutic measure. The majority of cases treated with serum showed some improvement in the general health and a more rapid healing of the syphilitic ulcers, especially when other anti-syphilitic treatment was used concurrently. Nevertheless, the treatment does not appear to modify the course of the disease or to diminish the intensity of the later manifestations.

### Australasian Medical Gazette, Sydney.

*June 20.*

24 An Introduction to Modern Theories of Immunity. D. A. Welsh.
25 Cerebral Hydatid; Operation; Recovery. J. C. Vercow and R. Poulton.
26 Right Central Hemianopsia with Word Blindness. J. L. Gibson.
27 Peritonitis or Ileus. Charles MacLaurin.
28 Conservatism in Renal Surgery. H. C. Hinder.
29 *A Case of Unilateral Gigantism. C. Reissmann.
30 *Ethyl Chlorid as a General Anesthetic. St. John Dansey.

**29. Unilateral Gigantism.**—Reissmann reports the subsequent history of a case of unilateral gigantism which came under his observation in September, 1902, and was reported at the time. The patient, a child 26 months old, still exhibits right-sided gigantism, the cheek, arm, forearm, and leg and

foot on the right side are larger than the corresponding parts on the left side, but not as much as they were 20 months ago. The giant side has not grown proportionately to the sound side, although it is stronger. The head is large for a child of its age, but the left side of the cranium, in the parietal and occipital regions, is larger than the right. The child speaks well, is intelligent, active and strong, but irritable. The peculiar interest in this case lies in the association of left cranial enlargement with complete right-sided gigantism. No similar case has been reported. The author suggests that some part of the central nervous system (? the left parietal cortex) is primarily at fault. It is a noteworthy fact that none of the 11 reported cases of gigantism were observed until some time after birth. In the case in question nothing was noted amiss with the child until it was some weeks old, from which one may conclude that the overgrowth of tissues did not commence until after the nervous system has established what the author terms trophic control over the peripheral tissues. If the condition of gigantism is due to an abnormality of the developing mesoblasts, as has been suggested, it is remarkable that not one of the 11 recorded cases were noticed at birth. Reissmann believes that there is sufficient evidence to warrant a strong suspicion that the origin of this rare condition is a pathological activity of certain nervous structures which excites an abnormal growth in the parts they control. In the case in hand it seems probable that the nervous structures primarily affected are those which have some influence on the growth of the right side of the body, namely, the cortical cells in the parietal region of the left side of the brain.

30. **Ethyl Chlorid as a General Anesthetic.**—Dansey prefers ethyl chlorid to nitrous oxid gas because it is quicker in the initiation of anesthesia; there is none of that disturbing duskiness which is more the rule than the exception with the administration of gas; it gives a much longer narcosis; the apparatus necessary is more easily portable and the ethyl chlorid is cheaper; it is not unpleasant to the patient; the recovery from narcosis is rapid and there are no subsequent ill-effects; ethyl chlorid is stimulating to the circulatory and respiratory centers, rather than depressing. He has given ethyl chlorid in over 60 cases for removal of adenoids, opening abscesses, teeth extractions, exploratory punctures, etc. He uses an ordinary Clover's ether inhaler, the ebony plug at the side being replaced by one with a small hole eccentrically placed downward, into which fits a small conical peg. The usual rubber bag is used or a bag made of fine silk lightly wrung out of water. To fill the inhaler the indicator is turned to zero and the small peg removed; through this hole about 4 c.c. of ethyl chlorid are sprayed into the ether reservoir. The patient is told to take a deep breath and the mask is fitted to the face in the usual way. At first the pulse is slightly slowed, but it soon regains its former rate; the color is good right up to deep narcosis; spasm and excitement are very rare. When the pupil is well dilated and the conjunctival reflex has disappeared the patient is anesthetized sufficiently. In anesthetizing with ethyl chlorid the chief point to bear in mind is the very rapid transit through the second and third stages of anesthesia. He also uses ethyl chlorid to initiate the narcosis of ether.

### Bulletin de l'Académie de Médecine, Paris.

31 (LXVIII. No. 26.) *Thérapeutique et prophylaxie anticancéreuse dans les campagnes (in the country). Triboulet.
32 *Cas d'épithélioma de la langue traités par la radiothérapie. Blaserié.
33 *Le diabète pancréatique, ses lesions, sa nature. E. Lancereaux.
34 *Report from Hyères Children's Sanatorium.
35 (No. 27.) *L'analgésie locale par la stovaine. P. Reclus.
36 *Le traitement des anévrismes des gros vaisseaux par les injections de solutions chloruro-sodiques de gélatine. Lancereaux.
37 *L'étiologie de l'appendicite, grippe et alimentation carnée (meat diet). J. Lucas-Championnière.
38 Cas d'épithélioma cutané de la region temporo-frontale, guéri par application des rayons X. C. Monod.

31. **Anti-Cancer Campaign in the Country.**—Triboulet urges the installment of Röntgen apparatus in small towns for free, or nearly free, treatment of the poor in the outlying farm district. In certain of the French provinces the number of cases of cutaneous cancer is very large—no village is without a few—and they could so easily be cured under Röntgen treatment if it were only accessible at moderate cost.

32. **Cure of Tongue Lesions by Radiotherapy.**—Bisserié relates that two rebellious cases of epithelioma of the tongue were completely cured by the Röntgen rays in less than two months, one with four exposures, the other with three. Three months have since elapsed without recurrence and the lesions are apparently cured. Another patient who had suffered for eight years from fungoid mycosis was practically cured by a few exposures, as also others with leucoplasia of the tongue.

33. **Pancreatic Diabetes, Its Lesions and Nature.**—Lancereaux describes 4 cases of the type he calls "thin diabetes." Large amounts of sugar were eliminated, 500 gm. in the twenty-four hours in one case with 5 liters of urine; about 90 gm. to the liter in the second, with 12 to 15 liters per day; in the third, 750 to 1,100 gm. sugar in 6 to 10 liters, and in the fourth, with a maximum of 550 gm. sugar in about 5,500 c.c. of urine. All the patients were extremely emaciated and they wasted away in progressive debility to death in coma after two to several years. Diabetic symptoms, polydipsia, polyuria, polyphagia, etc., the discoloration of the lips, dryness of the skin and weakness were common to all the cases, and at the necropsy all the islands of Langerhans were found completely destroyed. The acini were affected in some parts, not in all, but the constancy of the lesions of the islands of Langerhans confirms the connection between them and the disease. It is possible that some direct or reflex nervous inhibition from these islands of Langerhans may be the cause of the other types of diabetes, the nervous and arthritic types. In all these conditions the diabetes is the symptomatic expression of some functional or material disorder of the nervous system or of some alteration in the pancreas of variable origin. Diabetes should, therefore, be regarded as a mere symptomatic expression of the more or less advanced degree of annihilation of a special organ.

34. **Notes from a Children's Sanatorium.**—Vidal has been collecting data in addition to his own experience, which show that girls are much more subject to tuberculosis than boys, and also to all respiratory affections. On the other hand, he noted that boys were more subject to parasitic scalp affections than girls. A number of local epidemics of favus, alopecia areata and tinea circinata have occurred among the boys, but not among the girls, and the epidemics could not be arrested until the hair of the boys was allowed to grow long. Evidently long hair protects against these affections, and possibly, also, pomades applied to the hair.

35. **New Anesthetic: Stovaine.**—Reclus has been testing a new analgesic made by synthesis by a French chemist, Fourneau, and states that now, for the first time, we have in our possession a substance fully the equal of cocain, while only half as toxic and very much less expensive. It exerts a specific tonic action on the myocardium. Billon, Pouchet and others have also been testing it on animals and in the clinic, and emphasize in particular its special tonic action on the heart. Stovaine is the hydrochlorate of benzoic ether of dimethylamino-propanol, and is not a general anesthetic. Not a trace of by-effects was observed or elicited by questioning in the clinical cases in which it has been used for local analgesia, epidural injections, etc.

36. **Gelatin Treatment of Aneurisms.**—Lancereaux was the originator of this method of treating aneurisms, and here reports his experiences during the years he has been using it. Gelatin injected into the buttocks is carried into the blood, and wherever the current is sluggish and there is a depression, an eddy, in the channel, fibrin is deposited. This ensures clot formation in the depths of the aneurism, exactly where it is needed. In the thousands of injections made in his service there has not been a single mishap. If any have been observed by others they are due exclusively to impure material or defective sterilization. He relates the clinical history of 8 cases of large aneurisms of the aorta treated in this way; 4 of the patients are in good health to-day. All pains ceased after the first injections, and the tumor subsided. The aneurism was so large in 2 instances that a fatal result was inevitable—

the skin mortified from the pressure of the tumor—but the gelatin relieved the patients and the clots in the pocket prevented rupture, the final hemorrhage being merely an oozing instead of sudden gush of blood. Two patients succumbed to sudden syncope before the benefits of the gelatin treatment were apparent. The 4 others have been relieved of all their pains and discomfort, and the tumor has vanished. No other method of treatment can show such good results in 50 per cent. of the cases. He used a solution of 7 gm. of sodium chlorid and 25 gm. of gelatin, with water to make 1,000 gm. The formula for a single injection is generally 5 gm. gelatin in 250 c.c. of a 7 per 1,000 salt solution. He injects 200 gm. every three or four days. (At first he made the injections only once a week, but found that the intervals could be safely shortened.) Occasionally the injection caused a slight febrile reaction, or a little inflammation at the site, but these accidents were always briefly transient. The injected fluid is completely absorbed in less than twenty-four hours. He sterilizes the gelatin under pressure at 105 to 115 C., the latter temperature being the one accepted as preferable by the Académie.

37. **Etiology of Appendicitis.**—Lucas-Championnière denies that appendicitis has long existed and merely passed unrecognized. He attributes it to the epidemic of grip, affecting persons who habitually eat much meat. He regards appendicitis as a new disease, and advocates restriction of the intake of meat as important in prophylaxis, as also periodical purges. Purgation is the great preventive of all alimentary infections, and it should rank as the chief means at our disposal to ward off appendicitis. Occasional fasting from meat is an excellent measure, especially for those who have suffered from grip. He groups a large number of facts collected from various sources to sustain these views. Among them we note the first appearance of appendicitis in certain localities, always after an epidemic of grip, the latter being followed by numerous cases of the previously unknown appendicitis. He cites letters from physicians practicing in tropical regions, all testifying to the absence of appendicitis among the vegetarian natives, and its occurrence among the meat-eaters. In Roumania, whenever there is an epidemic or a sickly period at any remote point in the country, a detachment of physicians and nurses is sent from the hospital of the capital and a temporary hospital is set up, a sort of annex to the large central hospital at Bucharest, and under the control of its officers. Professor Stoicesco is at the head of this unique service, and he states that in the rural districts, where little or no meat is eaten, no cases of appendicitis are encountered. Out of 108,651 patients treated in these rural hospitals, 1898-1902, only 5 cases of appendicitis were observed, or once in 22,000 patients. In the hospitals of the city of Bucharest, during the same period, 221 cases of appendicitis were observed in the 51,817 patients, a proportion of once in 234 patients. La grippe has swept over the country as over the towns, but the population in the country is vegetarian, while in the towns meat is eaten. In the French, British and other colonies and armies the same observation is made again and again, the absence of appendicitis among the native non-meat-eating population and its prevalence among the meat-eaters. In the French prisons meat is allowed only once or twice a week, and no eggs. In the asylums, also, the menu is essentially vegetarian. None of the physicians interrogated knew of a single case of appendicitis in some of these institutions and in the others only 3 cases in many years, one of these a recurrence in a new inmate. Investigation of the religious orders showed a remarkable absence of appendicitis among those whose vows compel abstention from meat or frequent fasting, while in others, where much meat is used, appendicitis is remarkably frequent.

### Semaine Médicale, Paris.

38 (XXIV, No. 28.) *La dénutrition par persistance de la sécrétion lactée. L. Cheinisse.
40 *L'esprit d'asepsie dans le traitement des plaies (spirit of asepsis in treatment of wounds). F. Lejars.
41 De la délimitation abdominale du foie et de la rate, au cas d'ascite (outline of liver and spleen). L. E. Bertrand.
42 Traitement des bourdonnements de l'oreille par l'effluve de haute fréquence (electric treatment of tinnitus). Marquès. Abstract.
43 (No. 29.) *Recherches sur les localisations motrices spinales. G. Marinesco (Bucharest).
44 Importance of Daily Weighing of Patients with Anasarca. J. Courmont. Abstract.

39. **Debility from Persisting Lacteal Secretion.**—Cheinisse warns that it is possible for the secretion of milk to persist indefinitely in a more or less latent stage and seriously compromise the general health. He has observed a case of this kind in which there was pronounced debility and anemia in a young, previously healthy primipara, who had weaned her child more than two years before. All the organs were found sound, but in using the stethoscope a drop of milk escaped from the nipple, and the patient casually remarked that she "still had milk." The menses were regular, and analysis of the milk showed that it was not due to a new pregnancy. Antipyrin was administered to suppress the milk secretion, about 1.5 gm. a day, fractioned. By the end of a few days it was impossible to express any milk from the breasts, and without further medication the patient rapidly regained her usual health. Beltz reported a similar case in the *Bull. de la Soc. Méd.* of Rheims in 1876. In his patient the milk secretion persisted for more than four years, although milk escaped only under pressure, except during the menstrual period, when there was always an increase. The patient complained of pains in the stomach and kidneys, debility and lassitude, and there was considerable anemia. Whenever a woman is anemic and debilitated without apparent cause after weaning a child the possibility of a latent lacteal secretion should be borne in mind.

40. **The Spirit of Asepsis.**—The requirements of true asepsis in the treatment of wounds are plenty of good, soft, porous, absorbent gauze, thoroughly sterilized, and applied to the wound with a "muff" around it of absorbent cotton. These supply the conditions for perfect physiologic repair and normal defense of the wound process. Wet dressings, impermeable coverings, antiseptics, etc., are merely breeding places for germs or devitalize the tissues, enfeebling their resisting powers, while not materially enfeebling the germs. In infected wounds it may be necessary to apply hydrogen dioxid or hot saline solution to the depths of the wound, but above them the dressing should be as above. All moist, airtight methods of treating wounds should be totally abandoned.

43. **Spinal Motor Localizations.**—Marinesco has been conducting research for years on the motor localizations in the spinal cord. His work was done mostly on dogs, studying the reactions at a distance after section of nerve trunks or muscle nerves, or resection of muscles after severing the nerve roots. He summarizes his conclusions in this article, which is accompanied by 23 illustrations. He has found that the muscles which possess a common function are represented by groups of nerve cells arranged in relation to each other to correspond with the anatomic arrangement of their corresponding muscles. By this combination Nature economizes material while ensuring rapid and useful functioning. This explains the piling up of the cells in certain parts.

### Archiv f. Gynäkologie, Berlin.

*Last indexed XLII, page 132.*

45 (LXXI, No. 3.) Study of Blood Supply of Uterus, etc., during Parturition. O. Schaeffer.—Ueber die Blutversorgung der Gebärmutter vor und während des Geburtsbeginnes, sowie über die Aenderungen der allgemeinen peripheren Blutmischung unter der Wehenthätigkeit.
46 Ueber die Anwendung von Bossi's Dilatator. C. Hahl (Heinricius' clinic, Helsingfors).
47 Tarnier's "Ecarteur utérin" und seine Anwendung. O. Heikel.
48 Causes of Various Presentations. F. Schatz.—Die Ursachen der Kindeslagen. (Continued.)
49 Zur Anatomie der Tubar-Graviditat. E. Runge.
50 (LXXII.) *Festschrift.
51 (LXXIII, No. 1.) Die Beschaffenheit des Mesometrium bei Uterus-Carcinom. A. Theilhaber and Hollinger.
52 Erfahrungen über Tubar-Gravidität (Bericht über 100 Fälle). L. Zuntz (Berlin).
53 *Die Lymph-Organe der weiblichen Genitalien und ihre Veränderungen bei malignen Erkrankungen des Uterus. P. Kroemer (Giessen).
54 Die Alexander-Adams'sche Operation und ihre Dauer-Resultate. K. Reifferscheid (Bonn).
55 *Remote Results of Delivery by Instrumental Dilatation. H. v. Bardeleben (Gusserow's clinic, Berlin).—Spätfolgen des Entbindungsverfahrens mit schneller mechanisch instrumenteller Muttermundserweiterung.

**50. Festschrift of Leipsic Obstetric Society.**—The Leipsic Gesellschaft f. Geburtshilfe recently celebrated its twenty-fifth anniversary with much ceremony, Paul Zweifel presiding. A Festschrift was published in honor of the occasion, a bulky volume of 578 pages, containing 22 articles, and printed as Vol. lxxii of the *Archiv f. Gynäkologie*, Berlin.

**53. Lymph System in Uterine Cancer.**—This monograph by Kroemer is very extensive and copiously illustrated with 37 figures and 6 plates, and a bibliography of 251 references, carefully sifted. He proclaims that investigation of the glands should be the first step in surgical intervention. Three requirements are essential: 1, Exploratory excision to determine the indications for operating; 2, that patients treated by radical operation in whom the glands are found microscopically degenerated should be classed apart from others; 3, the material coming to the dissecting table should be utilized for microscopic examination and comparison with the clinical records.

**55. Remote Results of Instrumental Dilatation.**—Bardeleben's experience with instrumental dilatation to facilitate delivery has been very unfavorable. In 5 out of the 6 cases there have been consecutive disturbing parametritic indurations and cicatrices, or recurring inflammation in the parts. Four out of the total of 10 patients thus treated succumbed to pre-existing complications.

**Monatshefte f. praktische Dermatologie (Unna's), Hamburg.**

*Last indexed page 289.*

56 (XXXVIII, No. 8.) *Connection of Human Epidermis Cells with Each Other and with the Corium. L. Merk.—Die Verbindung menschlicher Epidermiszellen unter sich und mit dem Corium.

57 (No. 9.) Ueber einige Fälle von Neurodermitis chronica linearis. V. Mibelli (Parma).

58 Mode of Action of Urotropin. Köhler (Leipsic).—Weitere Beiträge über die Wirkungsweise des Hexamethylentetramin (Urotropin).

59 *What Do We Learn from the History of Hydriatic Treatment of Syphilis? J. Sadger.—Was lehrt uns die Geschichte der Syphilis-Hydriatik? (Commenced in No. 7.)

60 Chemistry of Elastin and of Elastin Staining. A. Pappenheim.—Ueber den Chemismus der Elastinfärbung und des Elastins, sowie das spezifische Prinzip der Elastinfarbstoffe. (Commenced in No. 7.)

61 (No. 10.) Benign Sarcoid Formations on the Skin. P. A. Pawloff (Moscow).—Zur Frage der sogen. gutartigen sarkoiden Bildungen der Haut (Roeck).

62 Treatment of Gonorrhea. M. Porosz (Budapest).—Die Behandlung des Trippers. Bemerkungen über Acidum nitricum und Cnrin.

63 *Innerliche Darreichung von Ichthyol in 3 Fällen von Mykosis fungoides und hematologische Untersuchung 2 dieser Fällen um die Zeit ihres Beginns. M. Hodara.

**56. Connection of Epidermis Cells with Each Other and with the Corium.**—Merk presents evidence to prove that the epidermis cells are connected with each other and with the corium merely by juxtaposition and a mucilaginous vehicle. They can be dissolved apart the same as a flake of sputum from a china surface.

**59. What Do We Learn from the History of Hydriatic Treatment of Syphilis?**—Sadger summarizes his conclusions in the statements that there are undoubtedly cases which have been cured by the combination of hydriatic procedures and careful dieting, but that years are required to accomplish this result. It is still an open question whether it is possible for all cases. The duration of treatment can be much shortened and its success, perhaps, first rendered possible by combining the hydriatic course with iodid or mercury and a careful diet. This combination has a number of advantages over either alone. The water treatment relieves intolerance to the drugs, and may possibly first render them effective. The dosage may be reduced, as the hydriatic treatment enhances their efficacy and makes the skin more receptive. The water course expels the mercury from the system as soon as it has accomplished its purpose, and hardens the patient to climatic changes. The general health also benefits materially; the various phases of the syphilis are shortened, and the subjective prodrome banished. The indurations are rapidly and permanently dispelled. The special domain of hydriatic procedures in syphilis is in cases of severe mercurial intoxication.

**63. Ichthyol Internally in Mycosis Fungoides.**—In a very severe, typical case of mycosis fungoides, Hodara administered ichthyol internally—.5 to 1.5 gm. a day—for two years, and then only during the summer for three more years. Marked improvement was evident from the first, and the patient is now practically cured. She was a woman of 60, who had suffered from the affection for six years previous to commencing taking the capsules of ichthyol. Similar benefit was attained in another case, and a third patient was also practically cured, but arsenic was given at the same time in this case. The diagnosis of mycosis fungoides was confirmed by the finding of a mononuclear leucocytosis. The ichthyol promptly relieved the itching in every instance.

**Münchener medicinische Wochenschrift.**

64 (LI, No. 25.) Chemical Processes Involved in Action of Light on Fluorescent Substances, and the Import of These Processes for the Action of Toxins. W. Straub (Leipsic).—Ueber chemische Vorgänge bei der Einwirkung von Licht auf fluoreszierende Substanzen (Eosin und Chinin), und die Bedeutung dieser Vorgänge für die Giftwirkung.

65 Action of Photodynamic Substances on Bacteria. A. Joddbauer and H. v. Tappeiner.—Ueber die Wirkung photodynamischer (fluoreszierender) Stoffe auf Bakterien.

66 *Behavior of Neutrophile Leucocytes in Infectious Diseases. J. Arneth.—Zum Verhalten der neutrophilen Leukocyten bei Infektionskrankheiten.

67 Relations Between Chemical Constitution and Hypnotic Action. A New Series of Hypnotics. G. Fuchs and E. Schultze.—Beziehungen zwischen chem. Konstitution und hypnotischer Wirkung. Eine neue Reihe von Schlafmittel.

68 Zur Kenntnis des Herpes Zoster bei kruppöser Pneumonie. Riehl.

69 The Gaertner Test for Determining Pressure in Right Auricle. Peters (Erb's clinic, Heidelberg).—Ueber die neue klinische Untersuchungsmethode von Prof. G. zur Messung des Druckes im r. Vorhof.

70 Die Orthodiagraphie und Perkussion des Herzens (of heart). Schütz (Freiburg).

71 Suprapubic Cystotomy for Prostatectomy. J. P. zum Busch (London).—Die Entfernung der vergrösserten Prostata vom Blasenschnitt aus.

**66. Behavior of Leucocytes in Infectious Diseases.**—Arneth reiterates his previous announcements that the methods of research on the blood count at present in vogue are absolutely inadequate. He has established that the neutrophile leucocytes, instead of belonging all to one class, must be further classified according as they possess one or more nuclei. He has found that these subclasses predominate in a characteristic manner in various infectious diseases, as is shown by 276 tables which he has compiled, each representing the examination of 100 neutrophile leucocytes. In a case of miliary tuberculosis he found that nearly all the neutrophiles belonged to the classes with one or two nuclei, and many of these nuclei showed morphologic changes. During the entire course of the disease these findings were obtained every time, although the number of leucocytes was normal. On the other hand, in a fatal case of traumatic tetanus the neutrophile findings corresponded to the normal average in every particular, even after treatment with Tizzoni's antitetanus serum. In cases of varicella, measles, mumps, erythema nodosum, etc., the findings showed that these infections are liable to cause severe injury of the neutrophile blood picture, although the total number of neutrophiles may correspond to the normal figure. In classifying the neutrophiles he arranges his tables in 5 groups: Group 1 (neutrophile leucocytes with one nucleus), with the subdivisions of, M (myelocytes), W (cells with nuclei only slightly hollowed out), and T (cells with nuclei much hollowed out). Group 2, neutrophiles with 2 nuclei, has three subdivisions, 2K (nucleus in 2 parts), and 2S (2 loop-like parts), and 1K, 1S. Group 3 has four subdivisions, Group 4 has five, as also Group 5. The average normal neutrophile findings determined by research on 15 healthy subjects is, in Group 1, M=0; W=.2; T=.5. Group 2 is 2K=.27; 2S=23.46; 1K, 1S=11.62. Group 3 has 3K=2.27; 3S=5.6; 2K, 1S=16.66; 2S, 1K=16.4. Group 4 is, 4K=3.8; 4S=.07; 3K, 1S=6.4; 3S, 1K=1.6, and 2K, 2S=4.73. Group 5 is, 5K=1; 4K, 1S=.4; 3K, 2S=.4; 4K, 2S=.07, and 3K, 3S=.07. The average in round numbers is thus 5 per cent. in Group 1, 35 per cent. in Group 2, 41 per cent. in Group 3, 17 per cent. in Group 4, and 2 per cent. in Group 5. The article issues from von Leube's clinic at Würzburg. It is supplementary to a monograph which Arneth has recently published in book form.

**Wiener klinische Rundschau, Vienna.**

*Last indexed XLII, page 1395.*

72 (XVIII, No. 15.) *Relations Between Appetite and Secretion of Gastric Juice. A. Meisl.—Ueber die Beziehungen zwischen Appetit und Magensaftsekretion. (Commenced in No. 14.)

73 **Tabes und Syphilis, mit bes. Berücksichtigung der Verhältnisse von Bosnien und Herzegovina.** C. Hodlmöser. (Commenced in No. 13.)
74 (No. 16.) **Malformations of Female Genitalia.** L. Stolper. —Ueber Missbildungen der weiblichen Geschlechtsorgane. (Commenced in No. 15.)
75 *Beitrag zur diagnose der Arteriosklerose des Zentral-Nerven-Systems. J. Hnatek (Prague). (Commenced in No. 11.)
76 (No. 17.) *Influence of Sewing Machine Work on Health. Nussbaum.—Ueber den Einfluss der Nähmaschienenarbeit auf das körperliche Befinden.
77 (No. 18.) *Failures in Treatment of Gonorrhea. E. Finger. Ueber Misserfolge bei der Gonorrhoebehandlung. (Commenced in No. 17.)
78 (No. 19.) *Neuere Beiträge zur Behandlung der Cholelithiasis mit Cholagen. J. Winterberg.
79 (No. 20.) Zur Therapie des Keratokonus. Elschnig.
80 (No. 22.) Various Structure of Cell Nucleus in Higher and Lower Organisms. L. Feinberg (Berlin). (Commenced in No. 16.)
81 (No. 23.) *Causes of Gout. Falkenstein.—Ursachen der Gicht.
82 Quinin as Oxytocic. A. Wiesner.—Zur Kenntnis der Wirksamkeit des Chinins als Wehenmittel. Geburt von Zwillingen mit Pause von 24 Stunden. (Commenced in No. 22.)
83 Favorable Effects of Antitussin in Whooping Cough. N. Swoboda.—Ueber die Behandlung des Keuchhustens mit Antitussin.
84 (No. 24.) *Results of Immunization with Separate Elements of Blood. A. Klein (Vienna).—Ueber Resultate von Immunisierungen mit getrennten Bestandtellen des Blutes.
85 *Color Hearing. H. Chalupecky (Prague).
86 *Zur Lues des Nerven-Systems. A. Buraczynski. (Commenced in No. 18.)
87 (No. 25.) Die Aetiologie der Lungen-Tuberkulose. von Weismayr.
88 Fracture of Clavicle in Normal Birth. Wohl.—Schlüsselbeinfraktur bei normaler Geburt.
89 Ueber die Heilwirkung der Akrato-Thermen. R. Beck.
90 Helmitol, Hetralin und Acidum nitricum bei Gonorrhoe und Cystitis. J. Bindermann.

72. **Appetite and Gastric Secretion.**—Meisl remarks that the study of metabolism is incomplete unless we take the appetite into account at the same time. It is a hitherto neglected but most important factor in the metabolism. He regards it as an impulse from the cortex, inciting various reflex acts as it passes through the sensory centers, which are of the greatest importance for the utilization of the food. It stimulates the secretion of saliva long before the influence of the ingredients of the food can be felt in this line, prolonging and enhancing the enjoyment of the food and getting the food into the best possible condition for its utilization in the stomach. The appetite is the inciter of the "appetite gastric juice," without which the digestion of bread and albumin in the stomach is entirely impossible, and the digestion of milk and meat is a much slower and weaker process. The appetite further increases the secretion in the pancreas and arrests the inhibitions which are liable to hinder the functioning of the pancreas. And, finally, the appetite leaves behind it an agreeable mood, in which the cortex functionates more perfectly, and any inhibiting influences which may have previously existed are suspended. The appetite is the highest phase of development of an instinct. If we obey its mandates it not only affords us enjoyment, but it has a vivifying and stimulating action on the functions of all the organs, especially those of the cortex. It is the highest mental evolution of the need of food, and is for the preservation of the individual what sexual love is for the preservation of the race.

75. **Diagnosis of Arteriosclerosis of Central Nervous System.**—Hnatek describes 2 cases. In one, a patient with a suspicion of lues, but not the slightest indication that the brain was involved, was suddenly seized with headache, vomiting, vertigo and numerous subcutaneous hemorrhages. Two weeks later there was also a weakness in the feet and in the bladder functions, followed in a month with nystagmus, partial oculomotor paralysis, dysphagia, anarthria, glossoplegia, anesthesia of tongue, right facial paralysis and spasmus nictitans. There was no paralysis of the legs, but much weakness. Death occurred in the course of ten weeks. The patient was a woman of 38, with general lipomatosis, and the necropsy revealed general arteriosclerosis, most pronounced in the vessels of the base of the brain, with hypertrophy of left heart and dilatation of right ventricle. Among the more striking symptoms was the high blood pressure, the difference in the pulse between symmetrically located arteries, which amounted at times to ten beats, and the so-called stability of the pulse—that is, the lack of variation when the subject changed from the reclining to the upright position, or *vice versa*. In the other case described the symptoms pointed to a tumor in the brain, with general arteriosclerosis, but the necropsy revealed extensive arteriosclerosis of the vessels of the brain, with consecutive, recent foci of softening in the white substance and in the gray nuclei, with a tendency to cyst formation, malacia of the pons, hypertrophy of the left heart and acute hemorrhagic nephritis. The patient was a woman of 42. The incipient choked disc had been accepted as evidence of a tumor in the brain.

76. **The Sewing-Machine and Health.**—Nussbaum refers to statistics and his own experience to show that the position at the machine and the constant use of the legs are liable to cause congestion in the female genitalia and consequent inflammation. The menses are frequently very irregular, and abortions, inflammation of the adnexa and other gynecologic troubles are unusually prevalent in this class of working women. He advises that they should take especial pains to sit erect and breathe deep, frequently rising to change their occupation or to step out of doors or practice respiratory gymnastics. Good ventilation and illumination are particularly necessary for persons who have to use the sewing machine constantly.

77. **Failures in Treatment of Gonorrhea.**—Finger mentions instances in which the gonococci had retreated to the prostate, where they remained, few in numbers and scarcely at all virulent, not causing the bearer the slightest trouble or even suggesting its possibility. Marriage, however, was followed by infection of the wife. The posterior urethra and the prostate are the usual sources of late trouble, and neglect of this possible localization may entail the severest consequences.

78. **Treatment of Cholelithiasis with Cholagen.**—Winterberg's experiences with Glaser's cholagen were eminently favorable. He found it particularly effective in the cases of small calculi and also in certain gastric affections which simulated cholelithiasis, but vanished completely under the influence of cholagen. Its most important use, he thinks, is in prophylaxis, and he witnessed fine results in warding off cholelithiasis in the predisposed by its use.

81. **Causes and Treatment of Gout.**—Falkenstein attributes gout to malfunction of the glands in the stomach which produce HCl. This results in defective digestion and defective metabolism in general, with the syndrome of gout as the final outcome. The therapeutic indications are to supply the missing hydrochloric acid. Treatment on this principle has been always well borne by his patients during the two and a quarter years since he made this discovery. The treatment prevents the formation of new deposits, and in time—by the improvement in the general health—it enables the organism to dispose of the old deposits. The subjects should not eat too much or too frequently, but otherwise may eat ordinary diet, avoiding indigestible articles, fat food, cheese, eggs and the internal organs of animals on account of their large proportion of nuclein. Sugar should also be strictly avoided. Persons with a tendency to gout should avoid sugar in any form, either in ice cream, cake, candy or in any article of food. With care in these respects, and constant taking of hydrochloric acid to supply the missing factor in digestion, the intervals between the attacks of gout become longer and longer, until finally the subjects find themselves entirely free and well.

84. **Results of Immunization with Separate Elements of Blood.**—Among the results reported we note that the tests demonstrated the non-identity of serum precipitin and erythro precipitin.

85. **Color Hearing.**—Chalupecky argues that the phenomenon of color hearing is merely a dual sensation, the result of exceptional sensitiveness on the part of the cortex—a slight exaggeration of the physiologic condition. It is akin to the cold shiver that runs down the back in connection with certain sensations—another dual perception.

86. **Syphilis of Nervous System.**—Buraczynski's article is based on 20 cases. The age of the patients was between 19 and 30 in 11, between 30 and 40 in 7, and only 2 were over 40. In one case the infection seemed to have originated in the tonsil. In 16 cases there were other manifestations of syphilis, but 4

were apparently exempt. There were no neuropathic antecedents in any instance, and the heart and lungs were sound. In 13 of the cases the nervous symptoms appeared within a year; in 4 they were not manifest until the third, fourth, sixth or tenth year. Only 10 patients had received previous treatment, and it had been very inadequate in the majority. His experience shows that continuous, energetic specific treatment will accomplish a complete cure in time in the majority of cases. Some of the patients refused treatment, and he longs for obligatory measures for such cases. One case of endarteritis terminated fatally, as no treatment had been attempted, the syphilitic nature of the affection not having been recognized. In another case of ignored syphilis the first nervous symptoms were intense pains in the left foot. The sciatic was found sensitive its entire length; knee-jerk present, but weaker on the affected side. The pains subsided under potassium iodid, and vanished completely with inunctions. Four similar cases have recently been published; the nocturnal type of the pains was an aid in diagnosing. In another case facial paralysis was observed the second month after infection. It developed slowly and was accompanied by headache, worse at night; all the symptoms vanished under inunctions. The syphilitic nature of the paralysis in this, and a second similar case, was demonstrated by the presence of secondary symptoms and the lack of other causes, the youthful age of the patients and the brilliant results of specific medication.

### Annali dell' Instituto Maragliano, Genoa.

91 (I, No. 1.) *Facts in Regard to Tuberculosis Demonstrated by Maragliano and Illa Pupilla.—Fatti dimostrati dagli studi sulla tubercolosi dal Prof. Maragliano e dalla sua scuola.

92 Description of Maragliano Institute for Study of Tuberculosis and Infectious Diseases, Genoa, 1900.

93 *Sulla formazione di anticorpi specifici tubercolari in animali trattati con estratto acquoso di bacilli vivi. E. Marzagalli and F. Figari.

94 *Sopra un nuovo metodo per la sierodiagnosi della tubercolosi. E. Marzagalli.

95 *Contributo allo studio dell' immunita nella tubercolosi. F. Figari.

96 Di un estratto oleoso a freddo dei bacilli della tubercolosi e della sua azione (value of oil extract of tub. bacilli). M. Sciallero.

97 *I fenomeni di necrobiosi presentati dai bacilli tubercolari iniettati sotto la cute degli animali. C. P. Goggia.

98 Modificazione morfologiche dei bacilli della tubercolosi in soggetti refrattari, immunizzati e curati col siero specifico antitubercolare. M. Sciallero.

**91. What the Maragliano School Has Accomplished.**—Professor Maragliano has commenced the publication, in a special *Annals*, of the work accomplished by him, or under his direction, in the line of the study of infectious diseases, tuberculosis in particular. The points already established are enumerated—fourteen in all. They all have been duly chronicled in THE JOURNAL. (See page 961 of the last volume.) The crowning demonstration is that of the possibility of curing tuberculosis in man by inducing a defensive process analogous to that which occurs in spontaneous recovery; also that the defensive materials (antitoxins and antibodies), administered by the alimentary canal, pass into the circulation and confer immunizing properties on the organism into which they have been introduced, rendering it refractory even to intravenous injection of virulent tubercle bacilli.

**93. Formation of Specific Antibodies in Animals Treated with Aqueous Extract of Live Tubercle Bacilli.**—This research was undertaken to see if it were possible to produce specific antibodies powerful enough completely to prevent the development of experimental tuberculosis. A large number of rabbits and guinea-pigs were the subjects, and the results showed that an agglutinating power of 1/2,000 had been conferred on the serum, and that the antibodies were capable of preventing the development and reproduction of tubercle bacilli both *in vitro* and in other animals.

**94. Improved Technic of Sero-Agglutination in Tuberculosis.**—Marzagalli rinses the tubercle bacilli in cold water until all the culture material is washed away. They are then triturated with distilled water and the emulsion is filtered through a Chamberland, after which the fluid is ready for the sero-agglutination test.

**95. Study of Immunization to Tuberculosis.**—Figari found that animals rendered passively immune to tuberculosis by serum from other animals treated with the aqueous extract of live bacilli were able to withstand otherwise fatal doses of human tuberculous material. On the other hand, animals rendered actively immune for a time proved in the end less resistant. He explains this contradiction by the fact that in passive immunization we introduce into the system defensive substances which, superposed on those already in the organism, confer sufficient immunity for purposes of resistance. But when we induce active immunity the formation of defensive substances is stimulated to such an extent that the elements of the tissues producing these defensive substances become exhausted by the extreme task imposed on them and are rendered more susceptible than is the case when these elements are not stimulated to such an extent.

**97. Morphologic Changes in Tubercle Bacilli.**—The conclusions of Goggia's research may be summarized in the statement that the predominance of aberrant and necrobiotic forms of tubercle bacilli in the sputa is an encouraging sign, as it indicates that the organism is working vigorously in its own defense.

### Riforma Medica, Palermo and Naples.

*Last indexed page 437.*

99 (XX, No. 18.) Sull azione protettiva del pus contre le infezioni mortali. R. Binaghi (Cagliari).

100 Della percussione del torace ascoltata alla bocca (percussion of thorax auscultated at mouth). T. Prodi.

101 Bacilli simil-tubercolari nel secreto delle otiti medie purulente croniche. A. de Simoni.

102 2 Aneurismi aortici migliorati colle iniezioni di gelatina. E. de Silvestri.

103 Sclerosi a placche familiare. R. Massalongo. Abstract.

104 (No. 19.) Intorno ad uno speciale tipo di infezione enterica da bacterium coli. F. Sicurani (Siena).

105 *Contributo alla cura degli ascessi polmonari ed alla esplorazione del polmoni. G. Cavazzani (Venice).

106 Rupture of Hydronephrosis Simulating Appendicitis. V. Gaudiani.—Rottura di una idronefrosi simulante appendicite.

107 (No. 20.) Contributo allo studio dell' epididimite blenorragica. F. Sprecher.

108 Caso di psicosi uremica con sintomi coreiformi. G. Maggiotto.

109 Intorno alla quistione delle nefrolisine. A. Ceconi and F. Michell. Abstract.

110 (No. 21.) Incision for Appendicitis Suspects. A. Signorelli.—Nei semplice sospetto di peritonite appendicolare si deve intervenire con laparotomia mediana o con il taglio obliquo laterale destro?

111 Contributo all' ernia dell'uretere. S. Rolando.

112 Congenital Anomaly of Heart in a Pregnant Woman. A. Ferraro.—Anomalia congenita di cuore in donna gravida. (Commenced in No. 20.)

113 Cancro primitivo della milza (of spleen). G. Baccelli. Abstract.

114 (No. 22.) Su di una alterazione speciale necrotica delle cellule epatiche nell' infezione tubercolare. R. Pernice.

115 Study of Streptothrix. F. Sanfelice.—Tubercolosi e pseudo-tubercolosi.

116 Sulla presenza di blastomiceti nella tubercolosi vegetante del naso (of nose). A. De Simoni.

117 Sulle parotite pneumococcica. O. Pennato. One case.

118 (No. 23.) I corpi di Negri in rapporto all'etiologica e alla diagnosi della rabbia (Negri's bodies in rabies). L. d'Amato. Found constantly and exclusively in rabid animals.

119 Incipient Primary Adeno-carcinoma in Appendix, Causing Repeated Attacks of Appendicitis. F. Neri.—Caso d'incipiente adenocarcinoma primitivo, circonscritto alla mucosa e sottomucosa di un app., etc.

120 Bacilli simil-tubercolari nell' adito faringeo degl' individui sani. A. De Simoni.

121 Nuovo processo di gastroenterostomia. G. Masnata (Stradella). Abstract.

122 (No. 24.) Contributo all'istologia patologica ed alla patogenesi dei corpi liberi articolari (free bodies in joints). G. Lionti.

123 *Respirazione dissociata. P. Grocco (Florence).

**105. Technic of Exploration and Operation on the Lungs.**—Cavazzani, in June, 1901, operated on a patient on account of an abscess of the lungs, and has since had occasion for intervention on a dozen more. The results have been so gratifying that he recommends his technic for exploring the interior of the thorax without special apparatus and without fear of accidents. It is based on the assumption that pneumothorax may be induced without fear of serious results, and the pleural cavity can then be sutured air-tight, leaving two drains in it. The air in the cavity is then aspirated through the drains and the openings closed air-tight; or physiologic salt solution can be injected to displace the air, and the openings be then closed air-tight. As the fluid is gradually absorbed the lung slowly expands to its

former volume. By either means it is possible to explore and operate on the viscera inside the thorax without fear of complications from the pneumothorax. He describes the details of his 13 cases. In the first, he made a subperiosteal resection of the seventh rib, opening the pleura, incising the pleura and lung, evacuating an abscess the size of an orange, and tamponing. The cure was complete in three months. In his second case the abscess was small and at a depth of 7 cm. from the surface. He operated on the lungs of a child three times in one case, but the lesions were multiple and could not all be reached and the patient succumbed in time, as in another case of lobular pneumonia in a child. In this case he mentions the return of resonance as the air in the thorax was aspirated and the lung expanded after the operation. Case X was a woman of 27, presenting symptoms which had been variously treated as acute and chronic pneumonia. Examination revealed a gangrenous abscess at the base of the upper lobe. After resection of 9 cm. of the fifth rib the abscess was found at a depth of 3 cm. from the surface. The cavity was the size of two fists. It was tamponed and recovery was complete in three months. The results of his operative intervention demonstrate that the thorax can be entered at any point in its periphery, and can be explored without danger if the air that has entered is aspirated or displaced by a physiologic fluid. He adds further that direct intervention on the lungs is feasible and practicable, especially if the cavities left are filled with some harmless substance and the breach in the walls made as small as possible. All his patients recovered except the 2 children.

123. **Dissociated Respiration.**—Grocco studies the type of respiration in which the physiologic co-ordination between the movements of the diaphragm and those of the intercostal muscles is disturbed. It is observed in endocranial affections and also in typhoid, pneumonia, uremia, etc., that is, it is liable to occur whenever the medulla is injured by the action of toxins, congestions, asphyxia or infections. He noticed it also in 2 cases of neurotic respiratory spasm.

### Vratchebnaya Gazeta, St. Petersburg.

*Last indexed XLII, page 889.*

124 (XI, Nos. 3-4.) **Advantages of Braun's Adrenalin-Cocain Anesthesia.** V. J. Gelpats.—Nabliudenlya nad adrenalinkokainovoi anesteziei.

125 Obscure Points in Contemporaneous Knowledge of Syphilis. I. I. Herbaman.—Nyekotoriya temniya storoni v sovremennom utchenii o syph.

126 *Unusual Forms of Anthrax in Man. E. I. Lintvareff.—Nyeskolko ryedkikh slutchaev sibirskoi yasvi u tchelovyeka.

127 (No. 6.) Importance of Anamnesis in Diagnosis of Abdominal Tumors. A. Novikoff.—Gdye iskat opornikh punktov dlya diagnostiki opukholei briushnoi polosti.

128 *Salicylates in Chorea Minor. M. A. Zausaliloff.—O letchenii Vittovo plyaski salicilovim natrom.

129 (No. 7.) *Mosquitoes and Malaria. S. I. Zlatogoroff.—Po povodu moskitnoi teorii rasprostranyeniya malarii.

130 To Reduce Infant Mortality. P. I. Fedoroff.—Borba s dyetskoi smertnostiu. (Concluded.)

131 (No. 8.) *Diphtherit posleyrodovoi matki (of puerperal uterus). M. P. Orbant.

132 *K kazuistikye ognestryelnikh ranenii zheludka (fire arm wound of stomach). A. S. Zholkoff. (Concluded.)

133 (No. 9.) *Mikrogastria. I. A. Benderaky.

134 *Myringotomiya kak sredstvo ulutchshaiushtchee siukh pri chron. otitis media. F. T. K. Stephanovski. (Concluded.)

135 Contagiousness of Leprosy. I. I. Hubert.—O zarazitelnosti prokazi.

126. **Unusual Forms of Anthrax in Man.**—Lintvareff reports 2 cases of anthrax of the lungs and digestive tract, mycosis pneumointestinalis, and 2 of malignant edema of the lids, with one of malignant edema with tetanus. A differential sign of anthrax of the digestive tract or lungs is the observation of numerous small, circumscribed patches of cutaneous edema. Anthrax bacilli can usually be found in their serous contents.

128. **Salicylates in Chorea Minor.**—Four cases are related to illustrate the favorable effects liable to be attained by systematic salicylic medication.

129. **Mosquitoes and Malaria.**—Mosquitoes are numerous at the mouth of the Don river and malaria is prevalent, but Zlatogoroff calls attention to the fact that the majority of cases occur during the spring months when the mosquitoes are comparatively rare. At the same time, the transmission of the disease by the mosquitoes was beyond question, but some other factors may co-operate in some cases.

131. **Diphtheria of Puerperal Uterus.**—In the case described the patient had fever after instrumental delivery with decapitation of fetus at term. Examination the sixth day showed a thick false membrane covering the mucosa of the uterus and plugging the os. Diphtheria bacilli were found in it with pus cocci. Serum treatment was instituted the ninth day and the patient was dismissed in good condition six days later.

132. **Firearm Wounds of Stomach.**—A young man fired a bullet from a revolver into his own chest. It entered the sixth left interspace, but under expectant treatment was evacuated in the stools a few days later, and recovery was soon complete. There had been only a little fever the first few days.

133. **Microgastry.**—Bendusky calls attention to the possibility of the stomach being congenitally very small and retaining its infantile type. He thinks the condition is more liable to occur in women—similarly to an infantile uterus.

134. **Myringotomy.**—Stephanovski illustrates his technic and describes 16 cases in which he applied it to cure deafness resulting from chronic otitis media. The deafness was completely cured in 12.5 per cent. and materially improved in 62.5 per cent., while the subjective sounds in the ears were partially or entirely banished in all. No inconveniences of any kind were noticed after the paracentesis.

## *Books Received.*

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

A SYSTEM OF PRACTICAL SURGERY. By Prof. E. von Bergmann, M.D., P. von Bruns, M.D., and J. von Mikulicz, M. D. Volume IV. Translated and Edited by William T. Bull, M.D., Professor of Surgery, College of Physicians and Surgeons, Columbia University, New York. Edward Milton Foote, M.D., Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York. Carleton P. Flint, M.D., and Walton Martin, M.D. Surgery of the Alimentary Tract. Cloth. Pp. 757. Price, $20 per set, 5 volumes. New York and Philadelphia: Lea Brothers & Co. 1904.

THE OPTICAL DICTIONARY. An Optical and Ophthalmological Glossary of English Terms, Symbols and Abbreviations, Together with the English Equivalents of Some French and German Terms Relating to Physical, Physiological and Pathological Optics, Optical and Other Instruments of Precision, and Terms Descriptive of Color and Photo-chemistry, to Which Are Added a Number of General and Mathematical Expressions. Edited by Charles Hyatt Woolf, F.R.P.S. Cloth. Pp. 168. Price, $1.00 net. Philadelphia: P. Blakiston's Son & Co. 1904.

A TEXT-BOOK OF ALKALOIDAL THERAPEUTICS, Being a Condensed Résumé of All Available Literature on the Subject of the Active Principles Added to the Personal Experience of the Authors. By W. F. Waugh, M.D., and W. C. Abbott, M.D., with the Collaboration of H. Epstein, M.D. Cloth. Pp. 405. Price, $5.00 post paid. Chicago: The Clinic Publishing Co. 1904.

THE THEORY AND PRACTICE OF INFANT FEEDING, with Notes on Development. By Henry Dwight Chapin, A.M., M.D., Professor of Diseases of Children at the New York Post-graduate Medical School and Hospital. Second Edition, Revised. With Numerous Illustrations. Cloth. Pp. 342. Price, $2.25. New York: Wm. Wood & Co. 1904.

A TREATISE ON APPLIED ANATOMY. By Edward H. Taylor, M.D. (Dublin Univ.), F.R.C.S.I., Surgeon to Sir Patrick Dun's Hospital. Illustrated with 178 Figures and Plates from Original Drawings. Many Printed in Colors. Cloth. Pp. 738. Price, $9.00. London: Charles Griffin & Co. Philadelphia: J. B. Lippincott Co. 1904.

FUR DIE TURKEI. Selbstgelebtes und Gewolltes von Dr. Robert Rieder Pascha, a.o. Professor der Chirurgie an der Universität Bonn, z. Z. Generalinspektor der Kaiserl. ottom. Medicinalschulen und Direktor des Krankenhauses Gülhane in Konstantinopel. Bd. II. Paper. Verlag von Gustav Fischer in Jena. 1904.

THE DOCTOR'S RED LAMP. A Book of Short Stories Concerning the Doctor's Daily Life. Selected by Charles Wells Moulton. Cloth. Pp. 343. Price, $2.50. Chicago, Akron, New York: The Saalfield Publishing Co. 1904.

TWENTY-SEVENTH ANNUAL REPORT OF THE BOARD OF HEALTH OF THE STATE OF NEW JERSEY and Report of the Bureau of Vital Statistics, 1903. Cloth. Pp. 682. Somerville, N. J.: Unionist-Gazette Association. 1904.

TRANSACTIONS OF THE THIRTY-FIRST ANNUAL SESSION OF THE MEDICAL SOCIETY OF VIRGINIA, Held in Roanoke, Va., Sept. 15-17, 1903. Cloth. Pp. 362-cxx. Richmond, Va.: Williams Printing Co. 1904.

FOURTEENTH ANNUAL REPORT OF THE EYE, EAR, NOSE AND THROAT HOSPITAL, 1903. Jan. 1, 1903, to Dec. 31, 1903. Paper. Pp. 61. New Orleans: A. W. Hyatt Stat'y Mfg. Co., Ltd. 1904.

REPORT OF THE SUPERINTENDENT OF GOVERNMENT LABORATORIES IN THE PHILIPPINE ISLANDS for the Year Ended Sept. 1, 1903. Paper. Pp. 278. Bureau of Insular Affairs, War Department.

TRANSACTIONS OF THE MEDICAL SOCIETY OF DELAWARE, 1903. Paper. Pp. 43. Wilmington, Del.: Sunday Star Print. 1904.